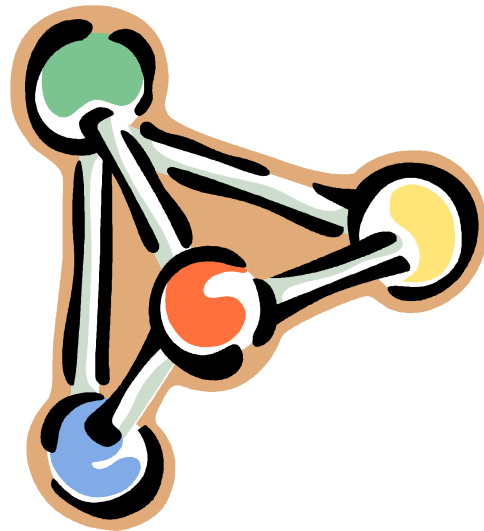


Chatham County Schools



Essential Science Vocabulary Fifth Grade 2007-2010

Foreword

The Chatham County Essential Science Vocabulary notebook provides teachers with a research-based tool to assist with effective instruction of vocabulary, that in turn, will improve student understanding of science concepts.

Current research highlights the importance of teaching vocabulary. “Systemic vocabulary instruction is one of the most important instruction interventions that teachers can use particularly with low-achieving students” (Becker, 1977). The National Reading Panel reiterated in 2000 a strong relationship between a reader’s comprehension and vocabulary knowledge. Research correlates the positive relationship of vocabulary with one’s ability to comprehend new information. Vocabulary strategies teach students to take ownership of new vocabulary by applying a learned strategy at any grade level.

What are the necessary steps for vocabulary instruction to be effective? In the book Classroom Instruction that Works, there are five guidelines provided for instruction to be most beneficial:

Students must encounter words in context multiple times to become familiar with them.

Students need brief explanations of new vocabulary words to improve their learning them in context. The level of teacher instruction directly impacts student comprehension and learning of new terms.

Students need to associate an image (nonlinguistic representation) with new words because it is one of the most effective instructional strategies. There is research that documents a significant gain in student learning of new definitions or using a word in a sentence when the student can associate the new word with an image or symbol.

Students who receive systemic vocabulary instruction have positive increases in their comprehension of new material.

Students must have direct instruction on preselected new words that are critical to new content in order to increase student understanding and comprehension of this content.

The intent of this document is to provide an instructional tool to assist K-8 teachers with the teaching of essential science vocabulary. Best practices and strategies are included for implementation. Teachers are encouraged and expected to utilize this science resource. The Chatham County Board of Education and educators are committed to the implementation of best practices in our inquiry-based science program.

Respectfully,

Dr. Ann Hart, Superintendent
Chatham County Schools

Dear Chatham County Teacher:

The *Essential Science Vocabulary Notebook* was designed and compiled by teams of Chatham County teachers representing grades K-8. Please take a few minutes to orient yourself with this valuable teaching tool.

The notebook contains six sections. The Introduction reviews the importance of including vocabulary development activities in science instruction. It also acknowledges the teachers who contributed to the creation of this notebook. The Table of Contents provides easy reference for busy teachers.

The *K-8 Essential Science Terms Section* contains a list of identified, essential K-8 science words. Teachers at each grade identified the science words by utilizing:

- the North Carolina Standard Course of Study (NCSCOS) for science,
- science kits taught at each grade level, and
- the science textbooks adopted by Chatham County (K-5 McMillan/McGraw Hill and grades 6-8 Prentice Hall Science Explorer).

Word lists for each grade level are organized sequentially referencing the Competency Goals on the Science NCSCOS. Words are alphabetized under each Competency Goal/Kit. The word lists help a teacher understand which vocabulary words students have studied and at which grade level words were introduced and taught.

In the *Word Map Samples Section* there is a list of essential science terms specific to a particular grade level. New terms are listed under the name of the science kit/competency goal. In grades 1-5 previously taught terms are marked review and maintained. The parentheses () indicate the grade level at which a word is first introduced and taught. A word map for each new term is provided. Each word map provides a word, its definition, its use in a sentence, and a space for a picture that students should draw/illustrate. Depending on the term, in grades 3-5, there will be space provided for a synonym and antonym. In grades 6-8 a wild card space is provided. There is flexibility in using the wild card space. Students using the wild card space may choose to do one of the following: synonym, antonym, “creative” synonym, “sounds” like, “looks” like, origin of the word’s root or student’s own definition. Teachers are encouraged to modify and should adapt these word maps to meet the needs of students.

The *Teacher Resource Section* contains additional resources for teachers to use implementing vocabulary instruction in the classroom. Also included are blank visual word maps and strategies for implementing word maps. Following are strategies that teachers can easily model and teach to students. Effective vocabulary instruction should incorporate these best practices:

- Provide a brief explanation or description of the new word.
- Present the new term with a nonlinguistic representation; the teacher does the task.
- Generate an explanation or description of the new word.
- Illustrate or draw a picture to represent the new term; the student does the task.
- Review periodically the accuracy of a student’s explanation.

In the *Science Root Words, Prefixes, and Suffixes Section*, there are lists of common science root words and related prefixes and suffixes.

The last section is entitled *Vocabulary Websites* and provides a list of helpful vocabulary websites.

The K-5 Chatham County Schools Essential Science notebooks include a copy of a vocabulary story to share with students. Kindergarten through third grade notebooks contain the chapter book, *Donovan’s Word Jar*. The fourth and fifth grade notebooks contain *Miss Alaineus: A Vocabulary Disaster*.

I look forward to working with you as we successfully implement this vocabulary tool.

Sincerely,

Donna Melpolder
K-8 Science Resource Teacher

K-8 Essential Science Vocabulary

Grade Level Team Members

2007-2010

Special recognition and acknowledgement to the dedicated teachers who worked diligently to identify essential science words and compiled the *Chatham County Essential Science Vocabulary Notebooks*.

Kindergarten

Laura Bultman, North Chatham School
Karen Dowling, North Chatham School
Angela Gallagher, North Chatham School
Jennifer Halsey, North Chatham School
Lynn Harrington, North Chatham School
Tracey McKee, Pittsboro Elementary

Grade 1

Susan Jones, Pittsboro Elementary
Jeanie Lawrence, Pittsboro Elementary
Christy Merrill, North Chatham School
Brandy Mitchell, North Chatham School

Grade 2

Dianne Gordon, Pittsboro Elementary
Debbie Lasater, Pittsboro Elementary
Rori Powell, Pittsboro Elementary
Kathy Washington, North Chatham School

Grade 3

Stephanie Brunson, Pittsboro Elementary
Sandra Totten, North Chatham School

Grade 4

Brittany Lasater, Siler City Elementary
Heather Sherrod, Siler City Elementary

Grade 5

Terri Fannin, Perry Harrison School
Lisa Lowing, North Chatham School

Grade 6

Dan Barnwell, Horton Middle
Andra Burks, Silk Hope

Grade 7

Erin Dennis, Moncure School
Linda Gardner, Silk Hope School
Dwayne Phillips, Chatham Middle

Grade 8

Brian Maccarelli, Chatham Middle School
Brian Purvis, Bennett School

K-8 Essential Science Vocabulary Coordinators and Facilitators

Jean Blackmon-Brauer, Director of Elementary and Middle Education, Administrative Office
Donna Melpolder, K-8 Science Resource Teacher, Horton Middle School
Carlene White, K-8 K Language Arts Resource Teacher, Horton Middle School
Spencer Register, K-12 EC Curriculum Resource Teacher, Horton Middle School
Kim Lilly, Administrative Assistant, Curriculum & Instruction, Administrative Office
Lillie Goldston, Administrative Assistant, Curriculum & Instruction, Administrative Office
Sherri Homan, 6-8 Mathematics Teacher, Bennett School
Jessie Mashburn, Clerical Assistant, Curriculum & Instruction, Administrative Office

Table of Contents

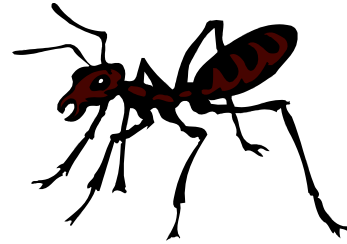
Foreword	i
Dear Teacher Letter	ii
Acknowledgements	iii
Table of Contents	iv
K-8 Essential Science Terms	1
Kindergarten	2
First Grade	3
Second Grade	4
Third Grade	5
Fourth Grade	6
Fifth Grade	7
Sixth Grade	8
Seventh Grade	9
Eighth Grade	10
Fifth Grade Word Map Samples	12
Ecosystems Kit	13
Landforms Kit	25
Investigating Weather Systems Kit	36
Motion and Design Kit	43
Teacher Resources	50
ABC Brainstorm	51
Alpha Block	52
Analyzing Vocabulary	53
Bingo Vocabulary	54
Blank Word Map Bubbles	55
Blank Word Map Horizontal	56
Blank Word Map Pyramid	57
Blank Word Map Vertical	58
Compound Words	59
Concept Definition Map	60
Concept of Definition Map	61
Context - Content - Experience	64
Cruising Through Vocabulary	65
Vocabulary Matching	66
Exit Cards	67
Frayer Diagram	68
Key Word	69
People Who do This	70
Primary Frayer Diagram	71
Science Vocabulary Worksheet	72

<u>Vocabulary Enricher</u>	73
<u>Vocabulary Tic Tac Toe</u>	74
<u>Vocabulary Web 1</u>	75
<u>Vocabulary Web 2</u>	76
<u>Vocabulary Word Maps</u>	77
<u>What's in Your Mind?</u>	80
<u>Word Chain</u>	81
<u>Word Clusters</u>	82
<u>Word Power</u>	83
<u>Word Pyramid</u>	84
<u>Vocabulary Squares</u>	85
<u>Word Storm</u>	86
<u>Word Study 1</u>	87
<u>Word Study 2</u>	88
<u>Word Study 3</u>	89
<u>Word Study Pre-Assessment</u>	90
<u>Word Tree Posters</u>	91
<u>Writing Definitions</u>	92
 <u>Science Root Words, Prefixes, and Suffixes</u>	 93
<u>Common Science Root Words</u>	94
<u>Common Science Prefixes</u>	95
<u>Common Science Suffixes</u>	96
 <u>Vocabulary Websites</u>	 97
<u>Websites Helpful in Teaching Vocabulary</u>	98

Kindergarten Essential Science Terms

Science Process Skills

experiment
investigate
measure
observe
procedure
scientist



Ant Homes Kit

animal
behavior
dormant
habitat
human
insect
mammal

Wood and Paper Kit

different
float
material
matter
nature
paper
senses
similar
sink
wood

Weather Kit

cloud
fall
meteorologist
precipitation
season
spring
summer
thermometer
weather
wind
winter

Measurements

estimate
explore
measure
ruler

First Grade Essential Science Terms

Science Process Skills

record

observe (*K) review and maintain

predict (*K) review and maintain

investigate (*K) review and maintain

scientist (*K) review and maintain



Organisms Kit

air

aquarium

cell

forest

hand lens

living

observe

ocean

organism

plant

terrarium

variety

insect (*K) review and maintain

habitat (*K) review and maintain

Pebbles, Sand, and Silt Kit

compare

float

materials

rock

sand

shape

size

soil

sort

texture

Solids and Liquids Kit

fluid

ice

liquid

magnet

matter

mixture

object (also listed under Balance and Motion)

solid

viscous

float (*K) review and maintain

matter (*K) review and maintain

sink (*K) review and maintain

Balance and Motion Kit

balance

force

motion

object

pull

push

rotate

weight

(*indicates the grade level when a word was introduced and taught)

Second Grade Essential Science Terms

Butterflies Kit

adult
abdomen
antennae
birth
chrysalis
egg
larva
life cycle
metamorphosis
needs
nocturnal
pupa
stage
thorax
human (*K) review and maintain
insect (*K) review and maintain

Sounds Kit

eardrum
frequency
human (also listed in Butterflies Kit)
instrument
membrane
pitch
tension
vibrate
vocal cords
volume
wave
solid (*1) review and maintain



Changes Kit

changes
combine
cooling
evaporate
freeze
gas
heating
melt
properties
separate
liquids (*1) review and maintain
mixture (*1)) review and maintain
solid (*1) review and maintain
materials (*K) review and maintain

Air and Weather Kit

air pressure
anemometer
condensation
energy
evaporate
hurricane
rain gauge
temperature
water cycle
wind direction
wind gauge
wind speed
wind vane
air (*1) review and maintain
clouds (*K) review and maintain
Fahrenheit (review and maintain with math)
force (*1) review and maintain
object (*1) review and maintain
precipitation (*K) review and maintain
thermometer (*K) review and maintain
wind (*K) review and maintain

(*indicates the grade level when a word was introduced and taught)

Third Grade Essential Science Terms

Science Process Skills

purpose
conclusion
investigate (*K) review and maintain
observe (*K) review and maintain
procedure (*K) review and maintain
record (*1) review and maintain



Plant Growth Kit

desert
flower
pollen
pollination
roots
seed
stem
tropical rain forest
water

Soils Kit

absorb
clay
compost
drainage test
humus
loam
nutrients
recycle
settling test
smear test
sand (*1) review and maintain
texture (*1) review and maintain

Objects in the Sky Kit

axis
constellation
eclipse
gravity
light
phases
planet
reflect
revolution
rotation
star
telescope
waning
waxing

Human Body Kit

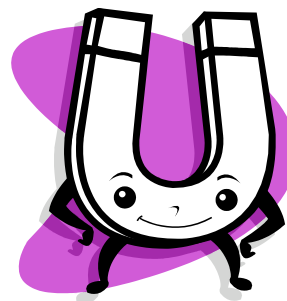
ball and socket joints
bones
development
function
gliding joints
growth
heart
hinge joints
muscles
protection
skeletal system

(*indicates the grade level when a word was introduced and taught)

Fourth Grade Essential Science Terms

Science Process Skills

hypothesis
safety
conclusion (*3) review and maintain
investigate (*K) review and maintain
observe (*K) review and maintain
procedure (*K) review and maintain
purpose (*3) review and maintain
record (*1) review and maintain



Animal Studies Kit

adaptation
behavior
characteristic
climate
environment
invertebrate
nonliving
survive
variation
vertebrate
habitat (*K) review and maintain
human (*K) review and maintain
living (*1) review and maintain
organism (*1) review and maintain

Rocks and Minerals Kit

classify
composition
erosion
geologic formation
geologic region
hardness
igneous
luster
magnetism
metamorphic
mineral
physical properties
sedimentary
streak
properties (*1) review and maintain
rock (*1) review and maintain

Magnetism and Electricity Kit

attract
circuit
component
conductor
discharge
electricity
generate
insulator
iron
metal
parallel circuit
receiver
series circuit
source
force (*1) review and maintain
magnet (*1) review and maintain
magnetism- also listed under Rocks and Minerals
parallel (math) review and maintain
energy (*2) review and maintain
push (*1) review and maintain
pull (*1) review and maintain

Food Chemistry Kit

calorie
carbohydrate
chemistry
fat
health
mineral (also listed under Rock and Minerals)
nutrient
nutrition
negative
oil
positive
protein
starch
sugar
vitamins
development (*3) review and maintain
function (*3) review and maintain
energy (*2) review and maintain
growth (*3) review and maintain
water (*3) review and maintain

(*indicates the grade level when a word was introduced and taught)

Fifth Grade Essential Science Terms

Science Process Skills

conclusion (*3) review and maintain
hypothesis (*4) review and maintain
investigate (*K) review and maintain
observe (*K) review and maintain
procedure (*K) review and maintain
purpose (*3) review and maintain
record (*1) review and maintain
safety (*4) review and maintain



Ecosystems Kit

biome
community
consumer
ecosystem
environment
extinct
food chain
food web
population
predator
prey
producer

Landforms Kit

canyon
delta
deposition
erosion
flood plain
landform
meander
sediment
slope
tributaries
valley

Investigating Weather Systems Kit

atmosphere
cirrus
climate
cumulus
humidity
run-off
weather
air pressure (*2) review and maintain
cloud (*2) review and maintain
condensation (*2) review and maintain
evaporate (*2) review and maintain
precipitation (*2) review and maintain
temperature (*2) review and maintain
wind direction (*2) review and maintain
wind speed (*2) review and maintain

Motion and Design Kit

friction
gear
inertia
mass
momentum
motion
simple machine
force (*1) review and maintain
gravity (*3) review and maintain

(*indicates the grade level when a word was introduced and taught)

Sixth Grade Essential Science Terms

Science Process Skills

Benefit
Inferences
Observation
Prototype
Risk
Technology
Variable
Hypothesis (*4) review and maintain



Lithosphere/Earth's Crust Kit - Competency Goal 3

continental drift
core
faulting
Lithosphere
magma
mantle
deposition (*5) review and maintain
erosion (*5) review and maintain
humus (*3) review and maintain
igneous (*4) review and maintain
metamorphic (*4) review and maintain
sedimentary (*4) review and maintain

Cycling of Matter and Population Dynamics Kit - Competency Goals 4 & 7

abiotic
biotic
commensalism
decomposer
mutualism
natural selection
niche
parasitism
photosynthesis
scavenger
symbiosis
adaptations (*4) review and maintain
consumer (*5) review and maintain
food chain (*5) review and maintain
food web (*5) review and maintain
producer (*5) review and maintain

Solar System Kit - Competency Goal 5

asteroid
comet
lunar
meteor/meteoroid/meteorite
neap tides
orbit
satellite
spin-off
spring tide
eclipses (*3) review and maintain
revolution (*3) review and maintain
rotation (*3) review and maintain
star/sun (*3) review and maintain

Energy Transfer and Transformation Kit - Competency Goal 6

absorption
amplitude
cochlea
concave
conduction
contraction
convection
convex
echolocation
expansion
frequency
laser
lenses
pupil
radiation
reflection
refraction
retina
scattering
sonar
transmission
volume

(*indicates the grade level when a word was introduced and taught)

Seventh Grade Essential Science Terms

Atmosphere - Goal 3

acid rain
air pressure
altitude
aneroid barometer
carbon dioxide
CFC's
climate
density
equilibrium
exosphere
fossil fuels
global warming
greenhouse effect
humidity
infrared radiation
ionosphere
mass
mercury barometer
mesosphere
non-point source pollution
ozone layer
particulate matter
point source pollution
precipitation
pressure
smog
stratosphere
temperature
thermosphere
troposphere
ultraviolet radiation
volume
weather

Motion and Forces - Goal 6

acceleration
balanced forces
force
friction
fulcrum
gravity
inertia
kinetic energy
machine
mass
mechanical advantage
momentum
Newton's 3 Laws of Motion
potential energy
relativity
simple machine
speed
unbalanced forces
velocity
weight

Human Body Systems - Goal 4

alveoli
arteries
atrium
capillaries
cardiovascular system
chemical digestion
cilia
circulatory system
dermis
digestive system
embryo
endocrine system
epidermis
epiglottis
equilibrium
excretory system
homeostasis
immune system
larynx
mechanical digestion
muscular system
nervous system
peristalsis
pharynx
respiratory system
skeletal system
trachea
valves
veins
ventricle

Heredity and Genetics - Goal 5

alleles
carrier
chromosomes
dominant
 F_1
 F_2
fertilization
genes
genetic disorder
genetics
genotype
heredity
heterozygous
homozygous
hybrid
incomplete dominance
inheritance
pedigree
phenotype
probability
Punnett Square
purebred
recessive
traits
variation



Eighth Grade Essential Science Terms

Science Process Skills - Competency Goal 1

constant
controlled variable
deduce
dependent variable
hypothesis
independent variable
infer
law
observation
system
theory

Hydrosphere - Competency Goal 3

Hydrosphere Kit

abyssal zone
adhesion
aquatic
aquifer
bathyal zone
benthos
bio-indicator
cohesion
consumer
contaminant
decomposer
dissolved oxygen
estuary
eutrophication
food web
hydrosphere
non-point source pollution
permeable
pH
plankton
point source pollution
polar
river basin
runoff
salinity
terrestrial
turbidity
watershed
water table



Continued on next page

Technological Design - Competency Goal 2

artifact
hardware
methodology
technology

Chemistry - Competency Goal 4

Chemistry Kit

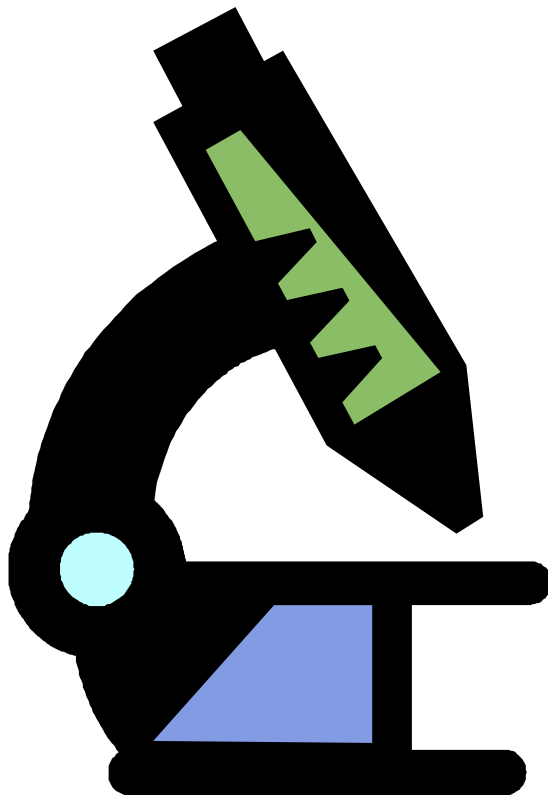
acid
acute
alkali
atom
atomic number
base
boiling point
bond
cancer
carcinogen
chemical
chronic
compound
concentration
density
dose
ductile
electron
element
endothermic
exothermic
exposure
isotope
Law of Conservation of Matter
malleable
melting point
metalloid
metabolism
mixture
nucleus
neutron
particle
pesticide
phase
plasm
potency
preservation
product
proton
reactant
soluble
solute
solution
solvent
specific heat
susceptibility
synthetic

Evidence of Evolution and Organisms and Landforms

Competency Goal 5

Change Through Time Kit

absolute dating
deforestation
era
evolution
extinction
fossil
ground truthing
index fossil
Law of Superposition
natural selection
period
relative dating
remote sensing
spectral analysis
species
unconformity
urban sprawl



Cell Theory - Competency Goal 6

Microbiology/Cell Theory Kit

chloroplast
chromosome
cytoplasm
diffusion
DNA
mitochondrion
mitosis
nucleus
organelle
osmosis
protist

Microbiology- Competency Goal 7

Microbiology/Cell Theory Kit

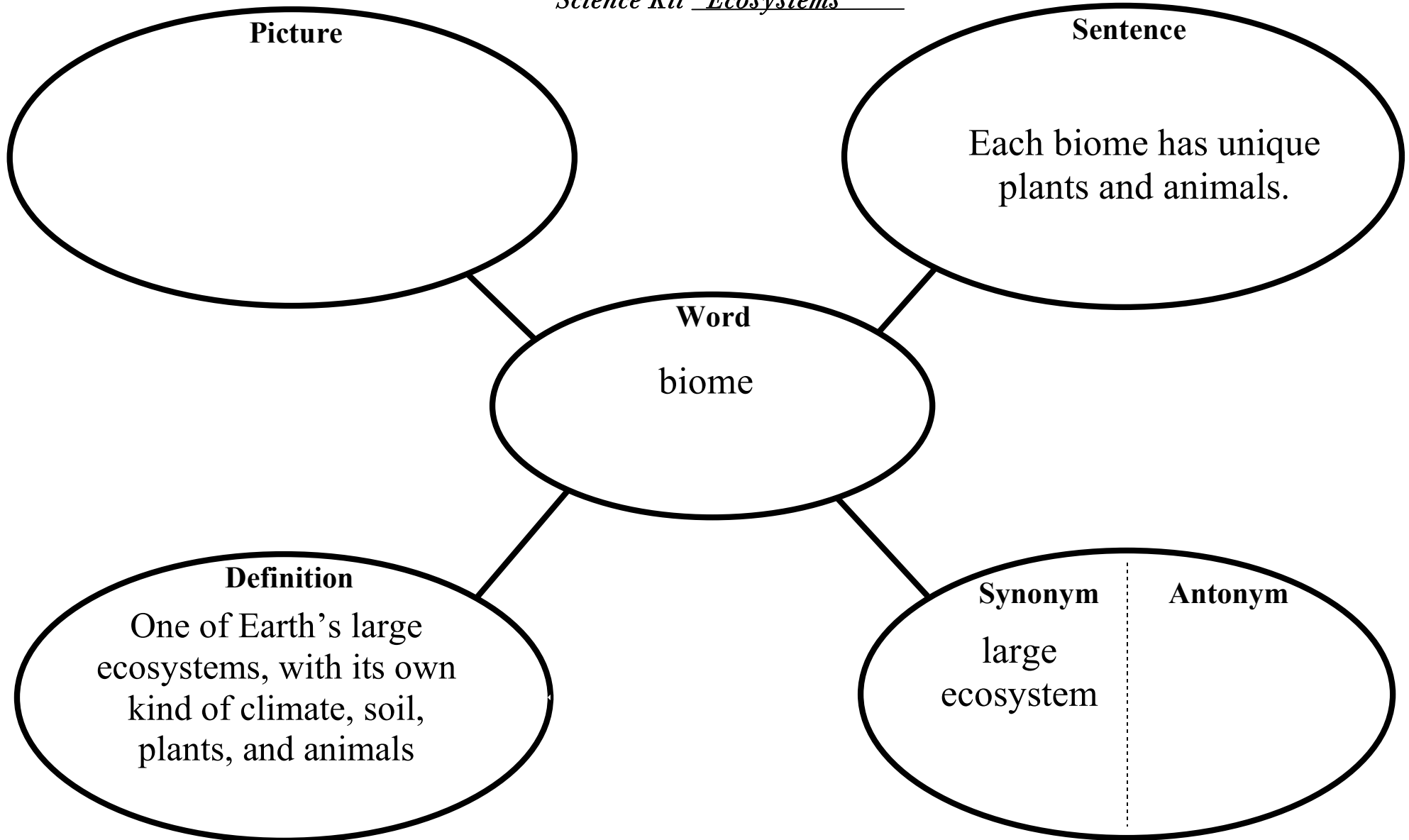
antibiotic
anti-microbial agent
bacteria
biotechnology
carrier
cilia
epidemic
eukaryote
flagella
fungi
genetic engineering
host
immunization
microbe
mutagen
parasite
pathogen
prokaryote
protozoan
toxin
vaccine
vector
virus

Essential Science Vocabulary

Grade 5

SCoS Goal 1

Science Kit Ecosystems

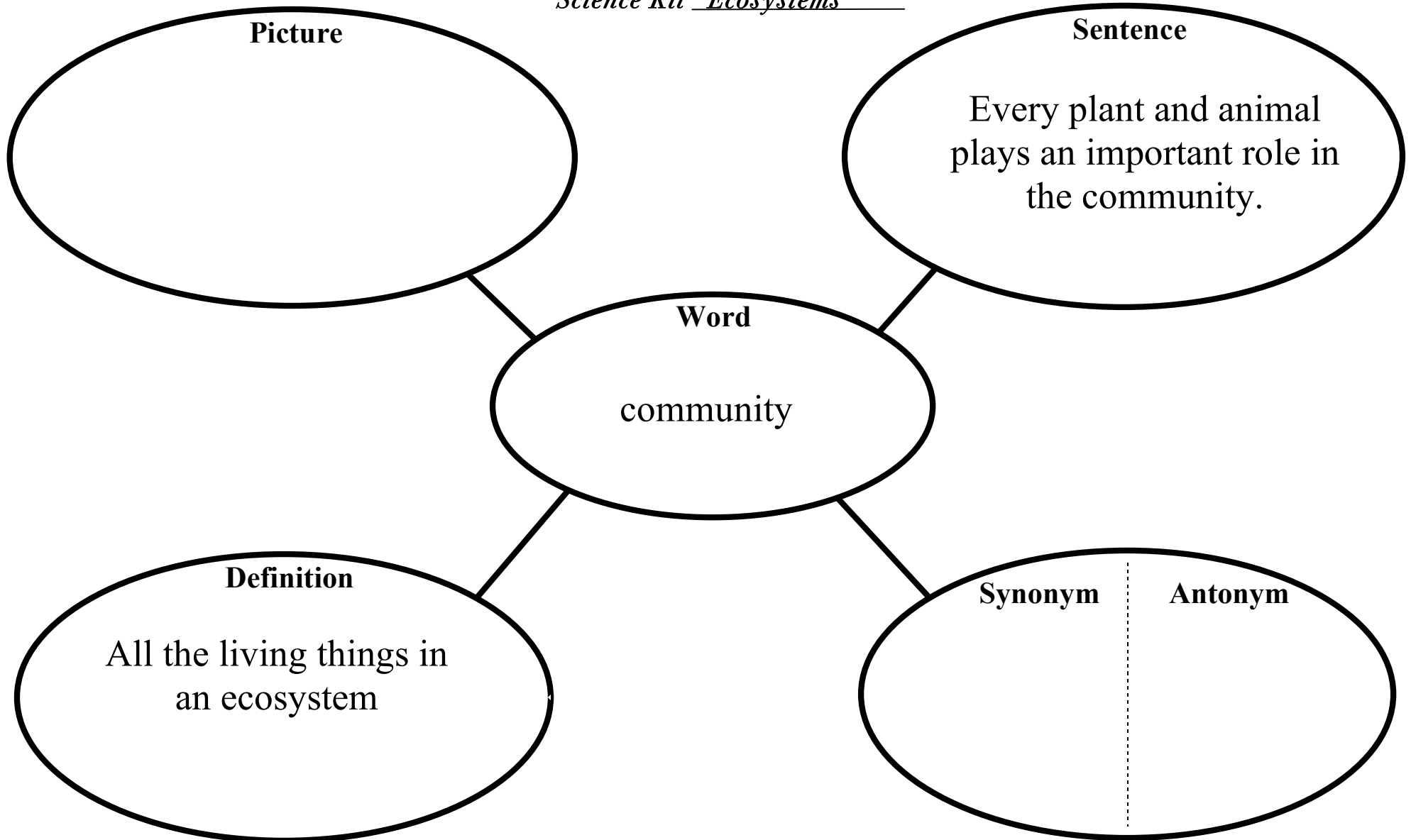


Essential Science Vocabulary

Grade 5

SCoS Goal 1

Science Kit Ecosystems

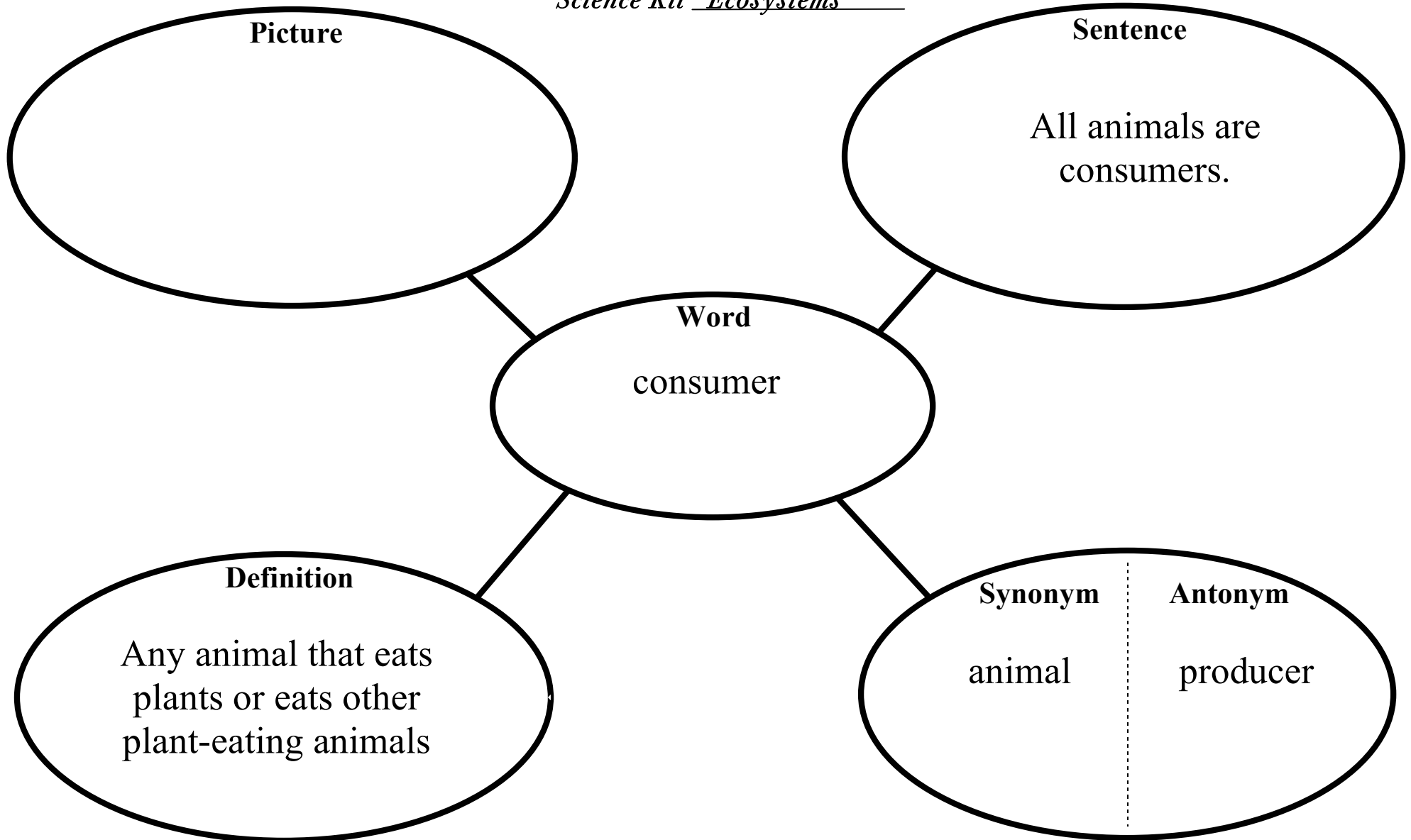


Essential Science Vocabulary

Grade 5

SCoS Goal 1

Science Kit Ecosystems

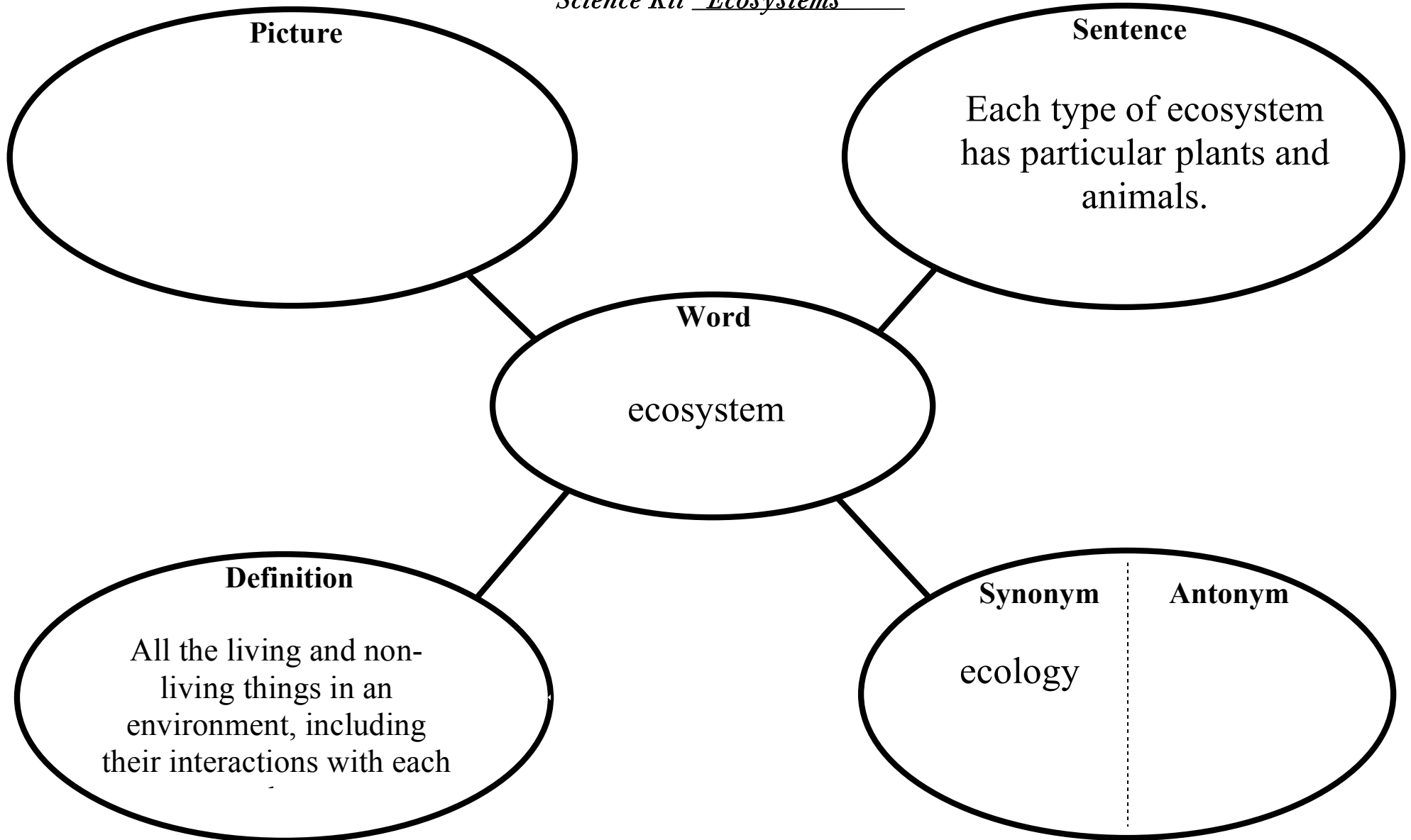


Essential Science Vocabulary

Grade 5

SCoS Goal 1

Science Kit Ecosystems

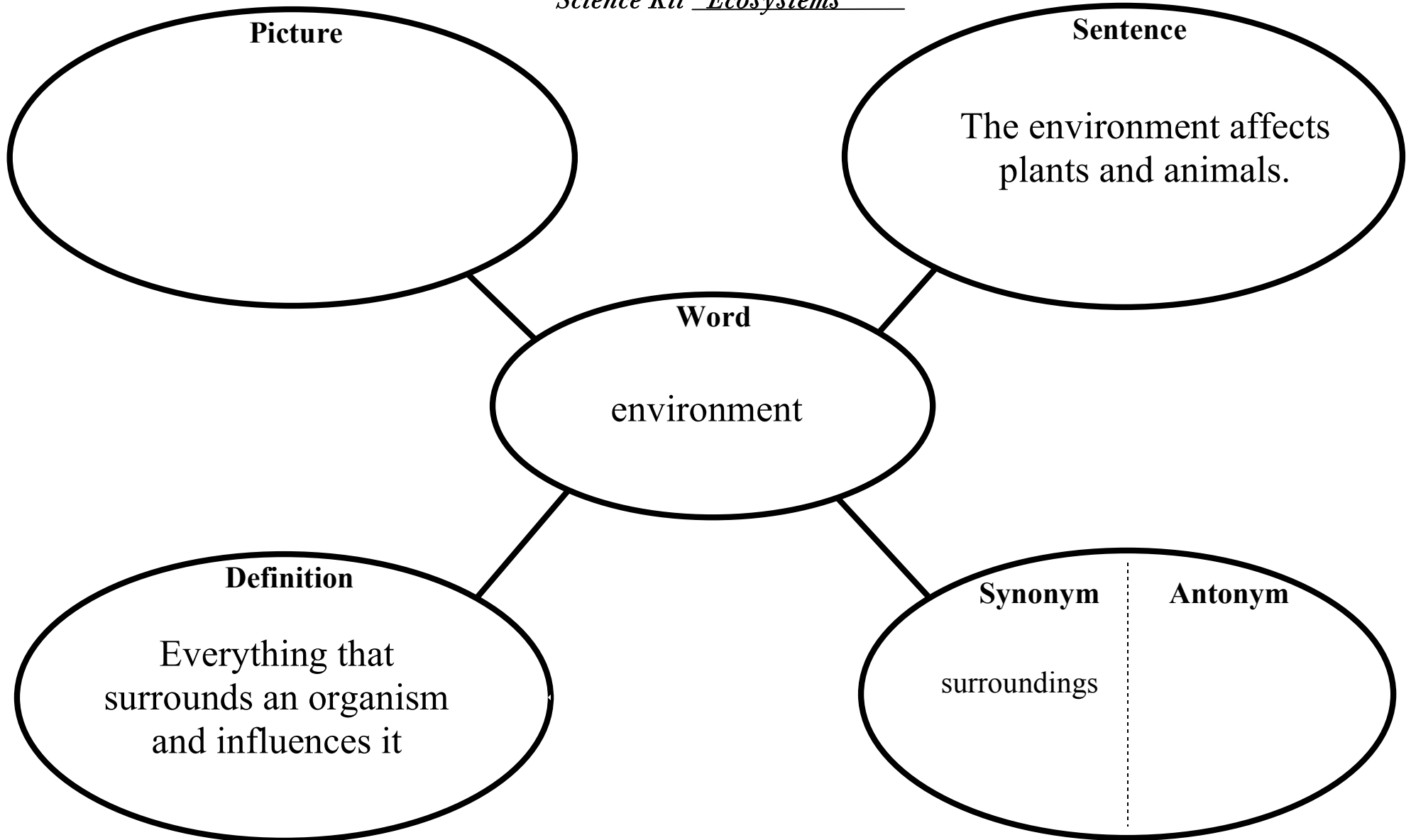


Essential Science Vocabulary

Grade 5

SCoS Goal 1

Science Kit Ecosystems

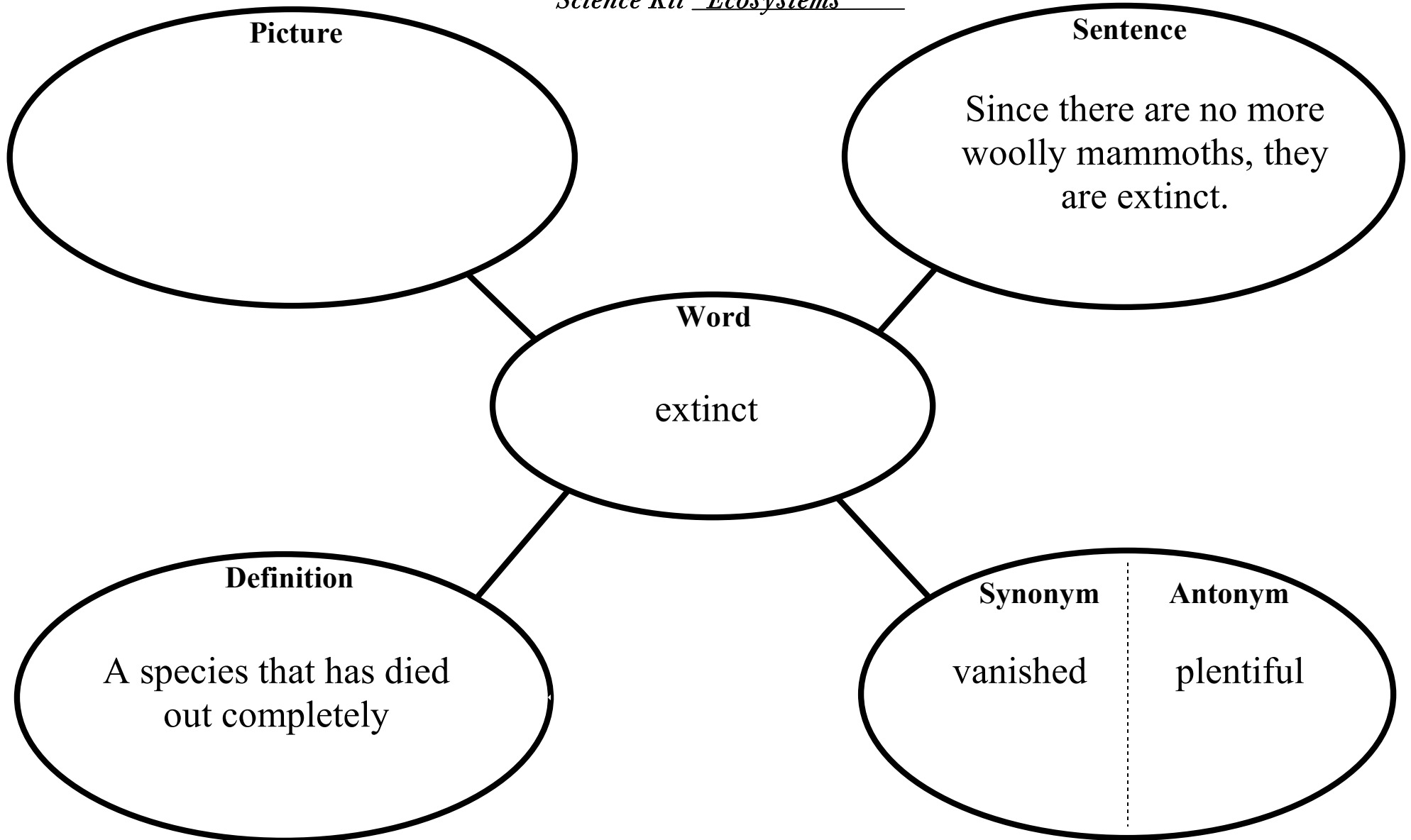


Essential Science Vocabulary

Grade 5

SCoS Goal 1

Science Kit Ecosystems

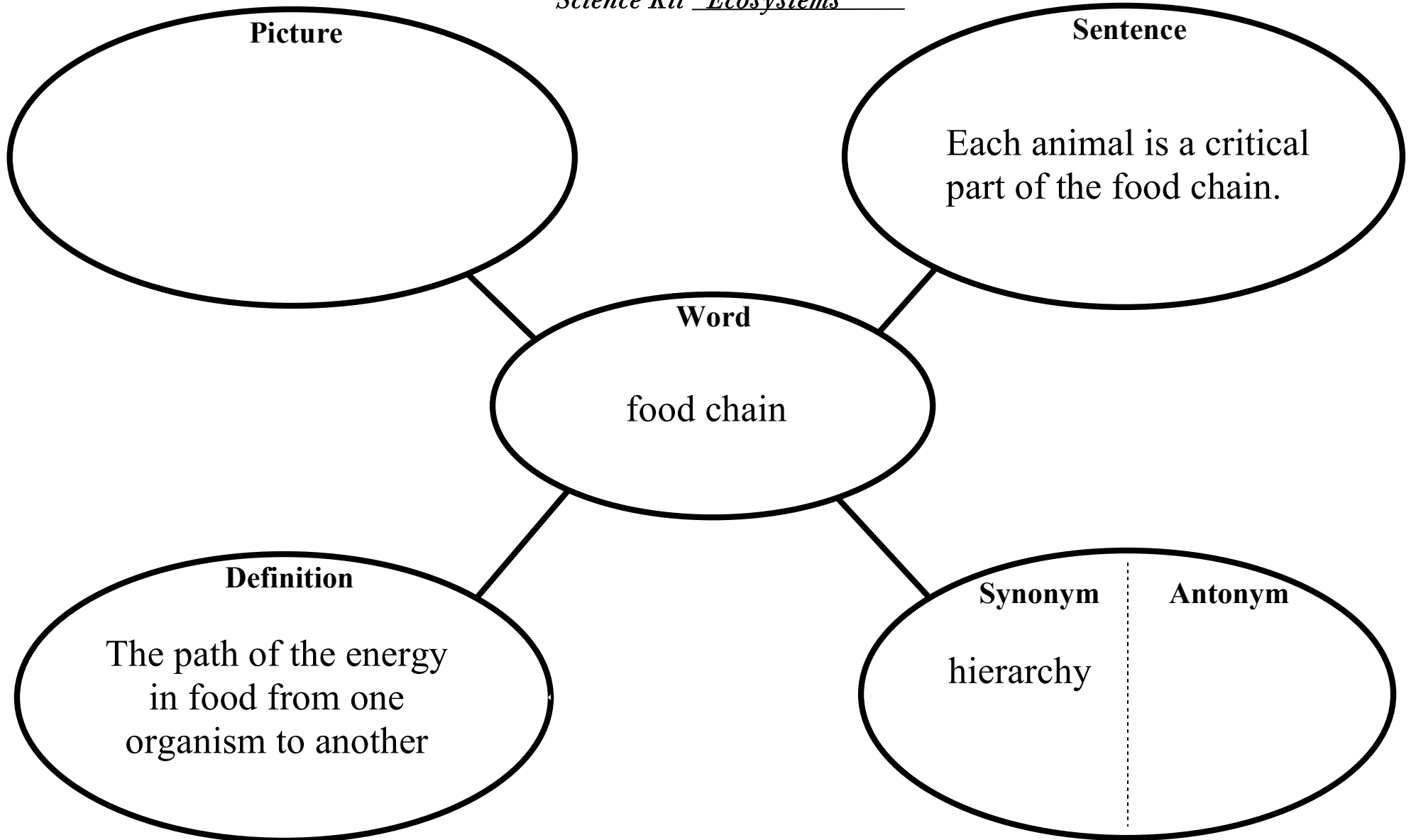


Essential Science Vocabulary

Grade 5

SCoS Goal 1

Science Kit Ecosystems

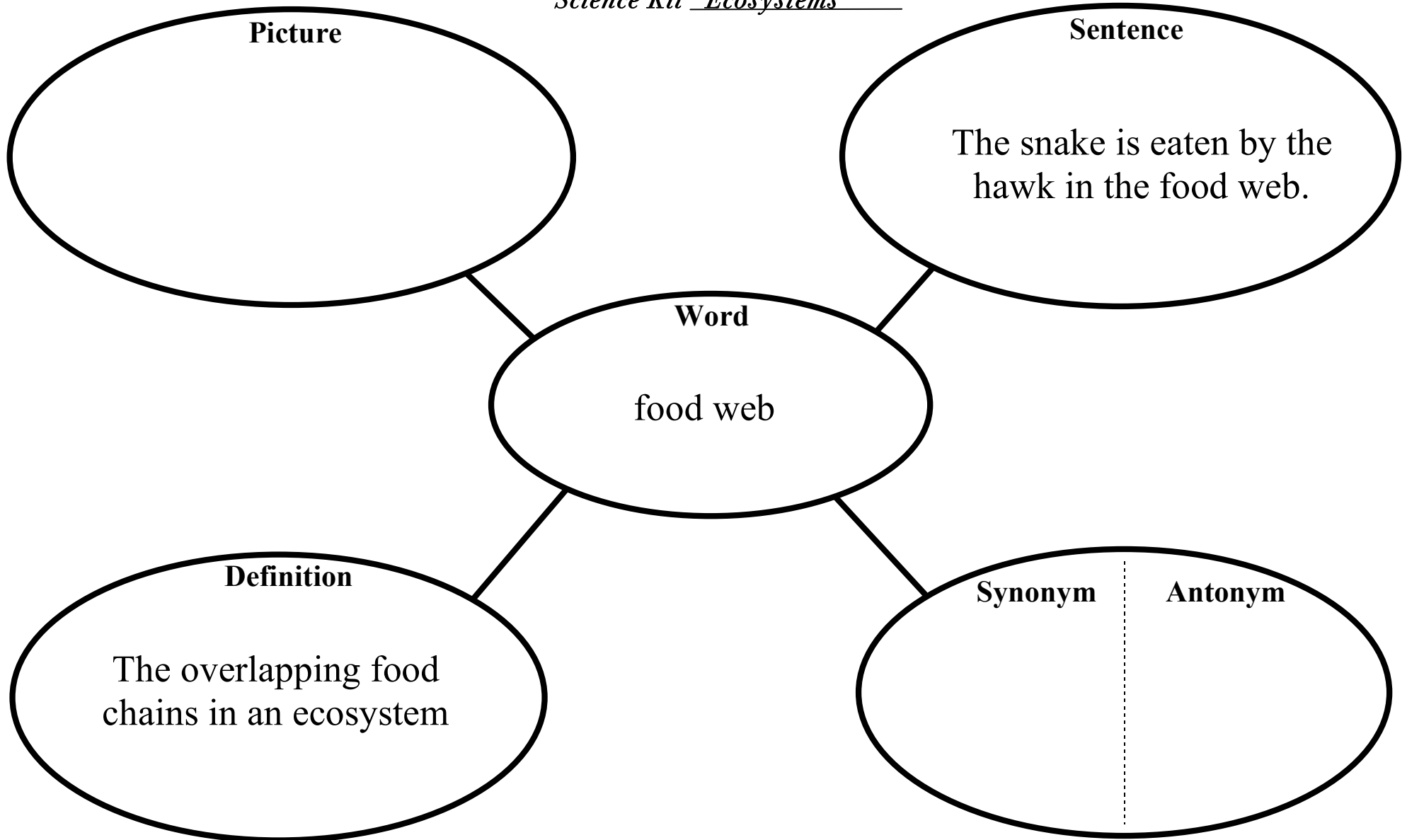


Essential Science Vocabulary

Grade 5

SCoS Goal 1

Science Kit Ecosystems

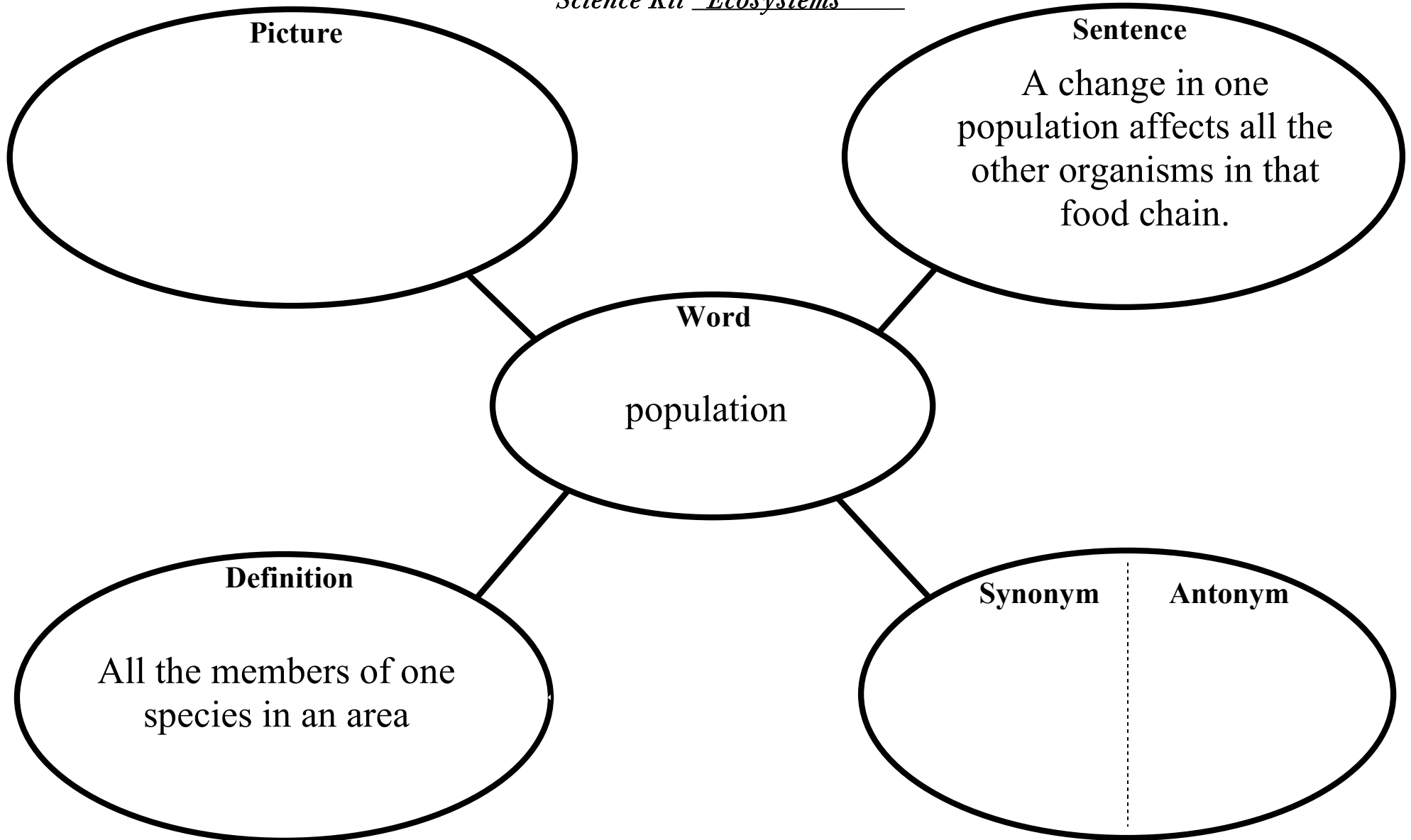


Essential Science Vocabulary

Grade 5

SCoS Goal 1

Science Kit Ecosystems

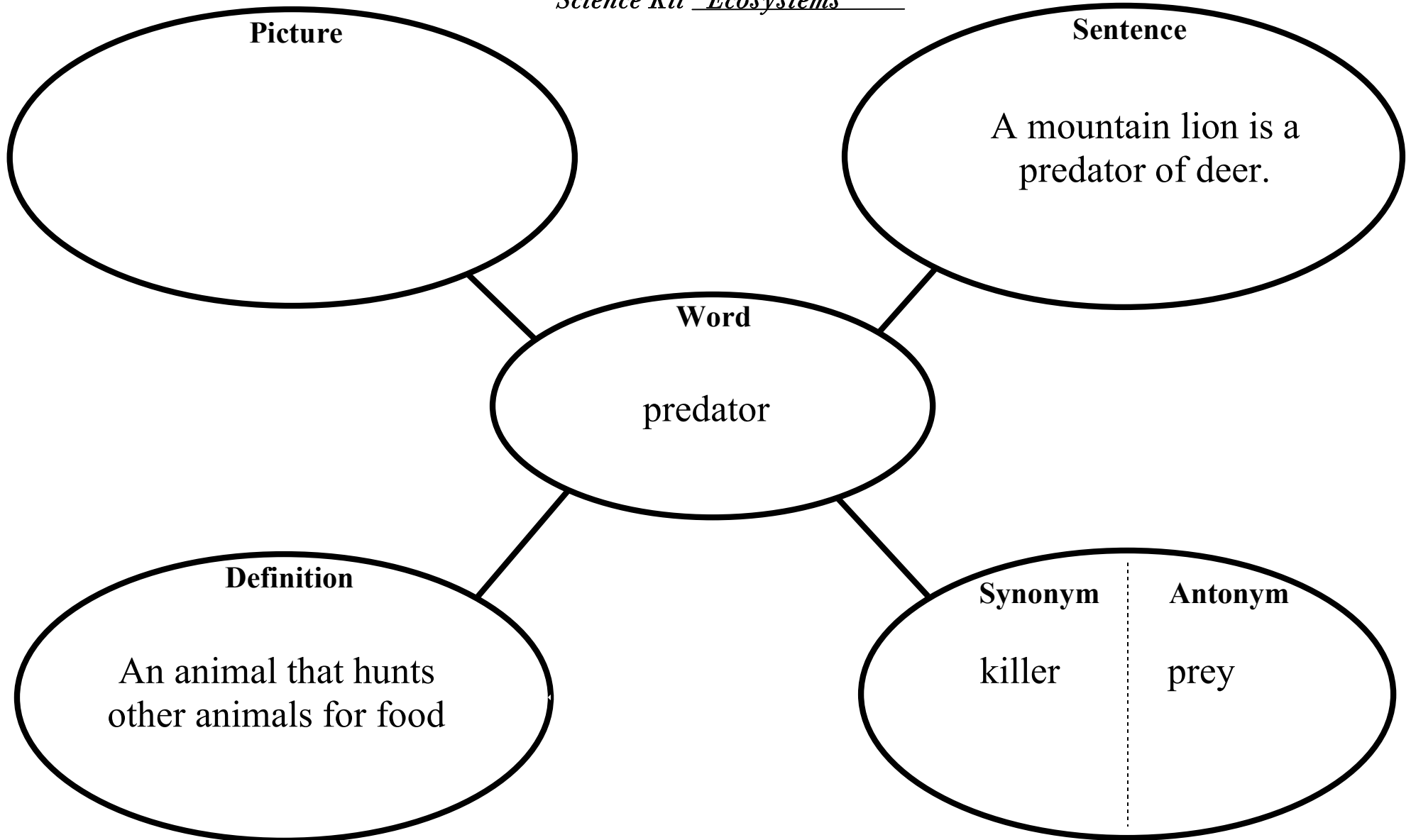


Essential Science Vocabulary

Grade 5

SCoS Goal 1

Science Kit Ecosystems

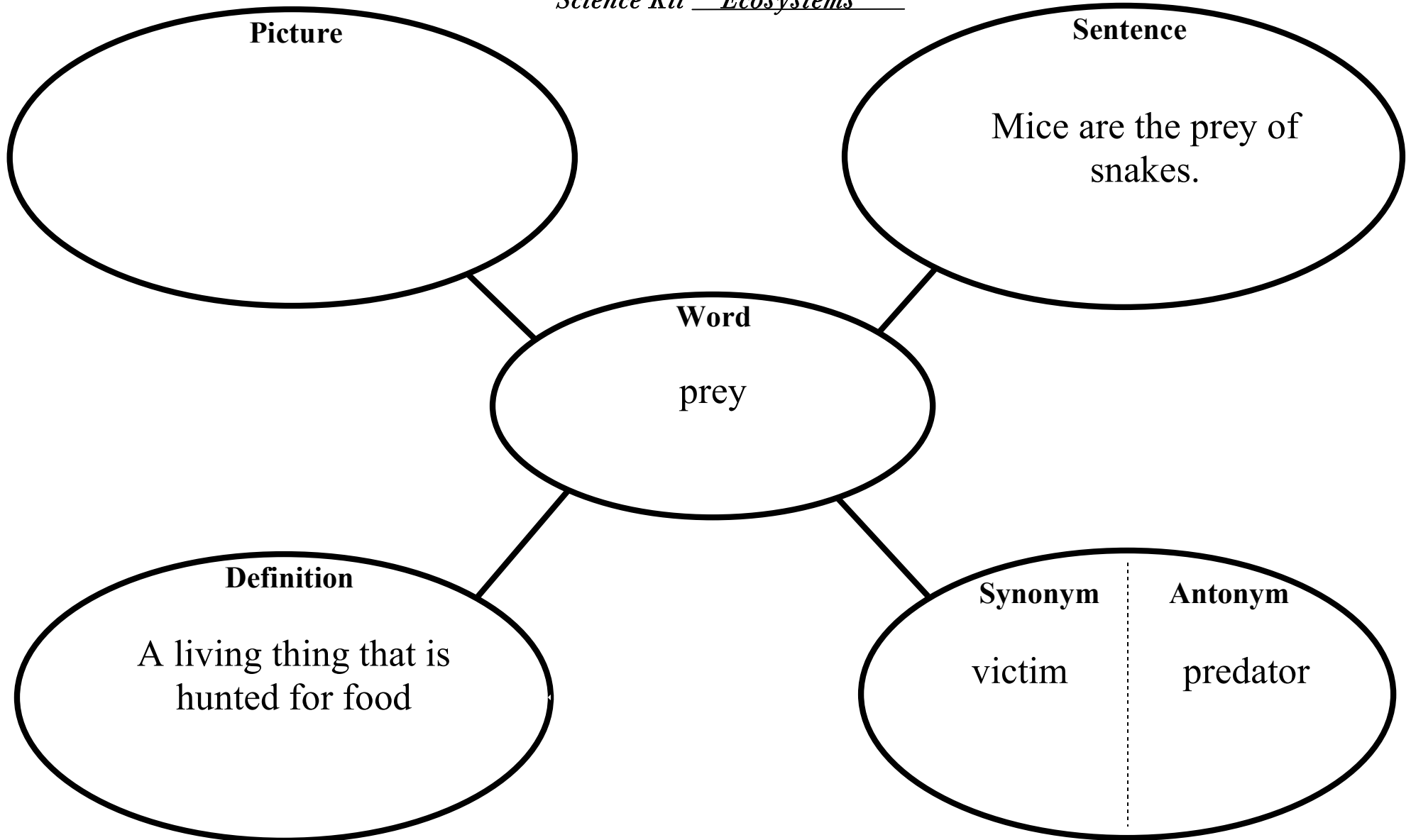


Essential Science Vocabulary

Grade 5

SCoS Goal 1

Science Kit Ecosystems

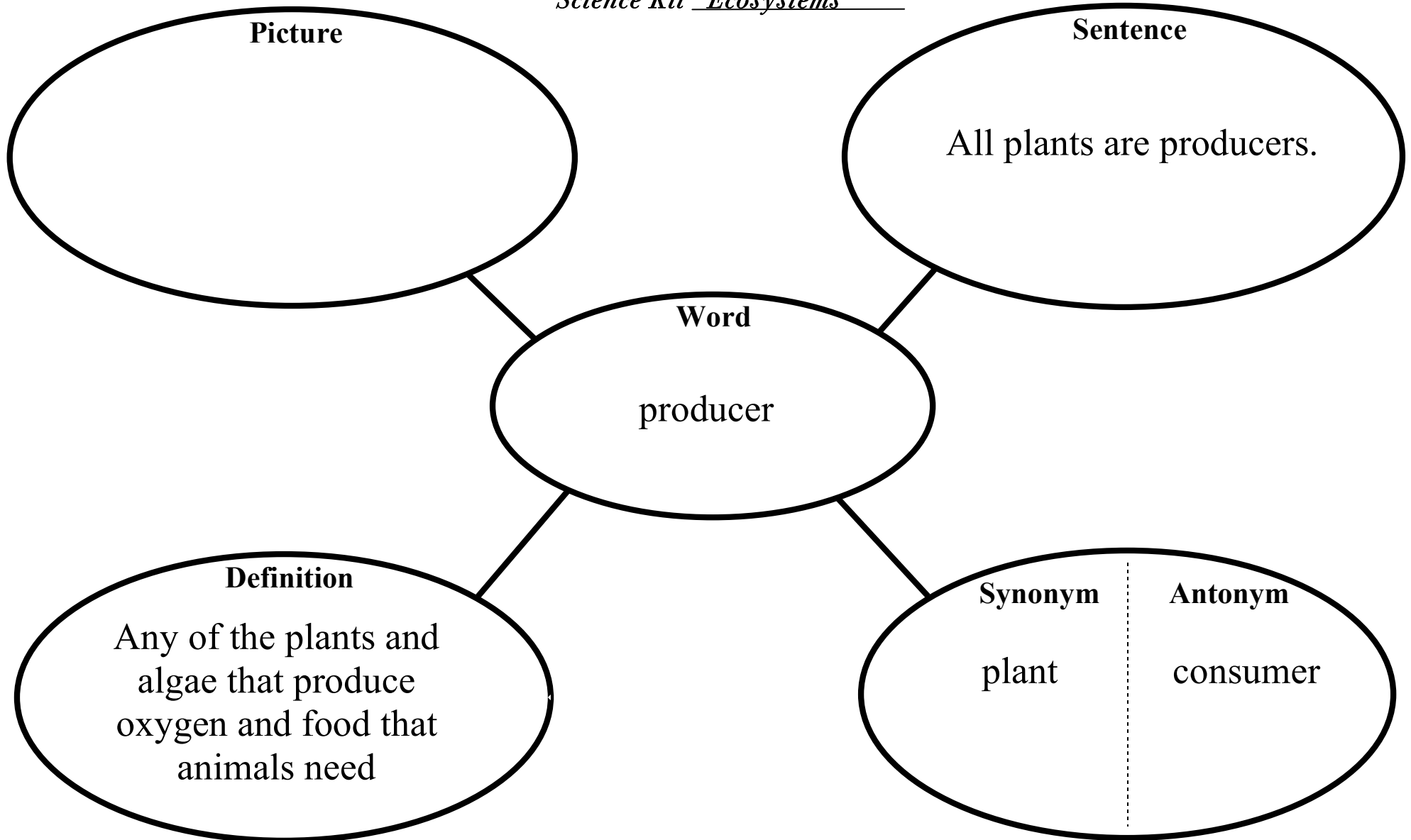


Essential Science Vocabulary

Grade 5

SCoS Goal 1

Science Kit Ecosystems

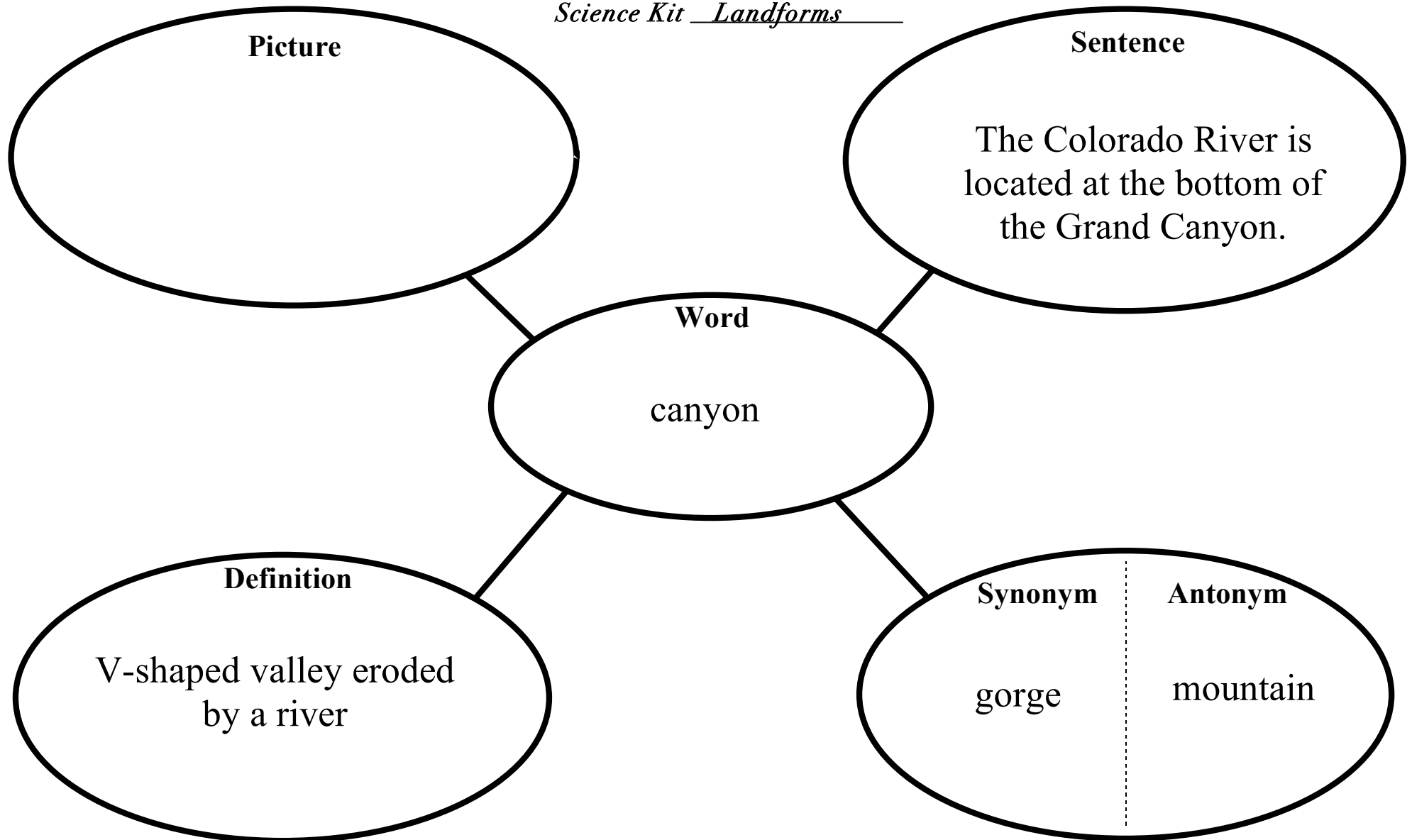


Essential Science Vocabulary

Grade 5

SCoS Goal 2

Science Kit Landforms

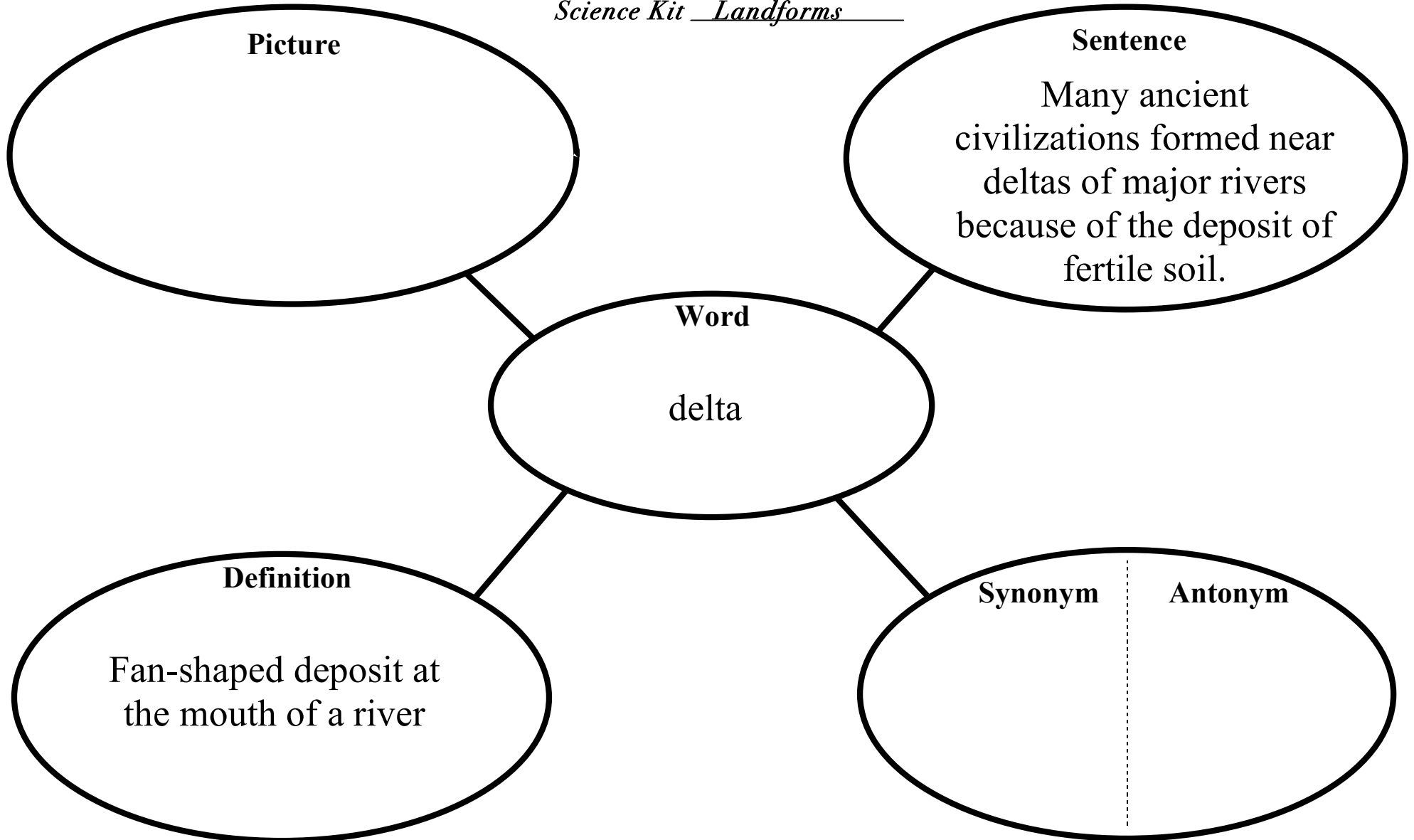


Essential Science Vocabulary

Grade 5

SCoS Goal 2

Science Kit Landforms

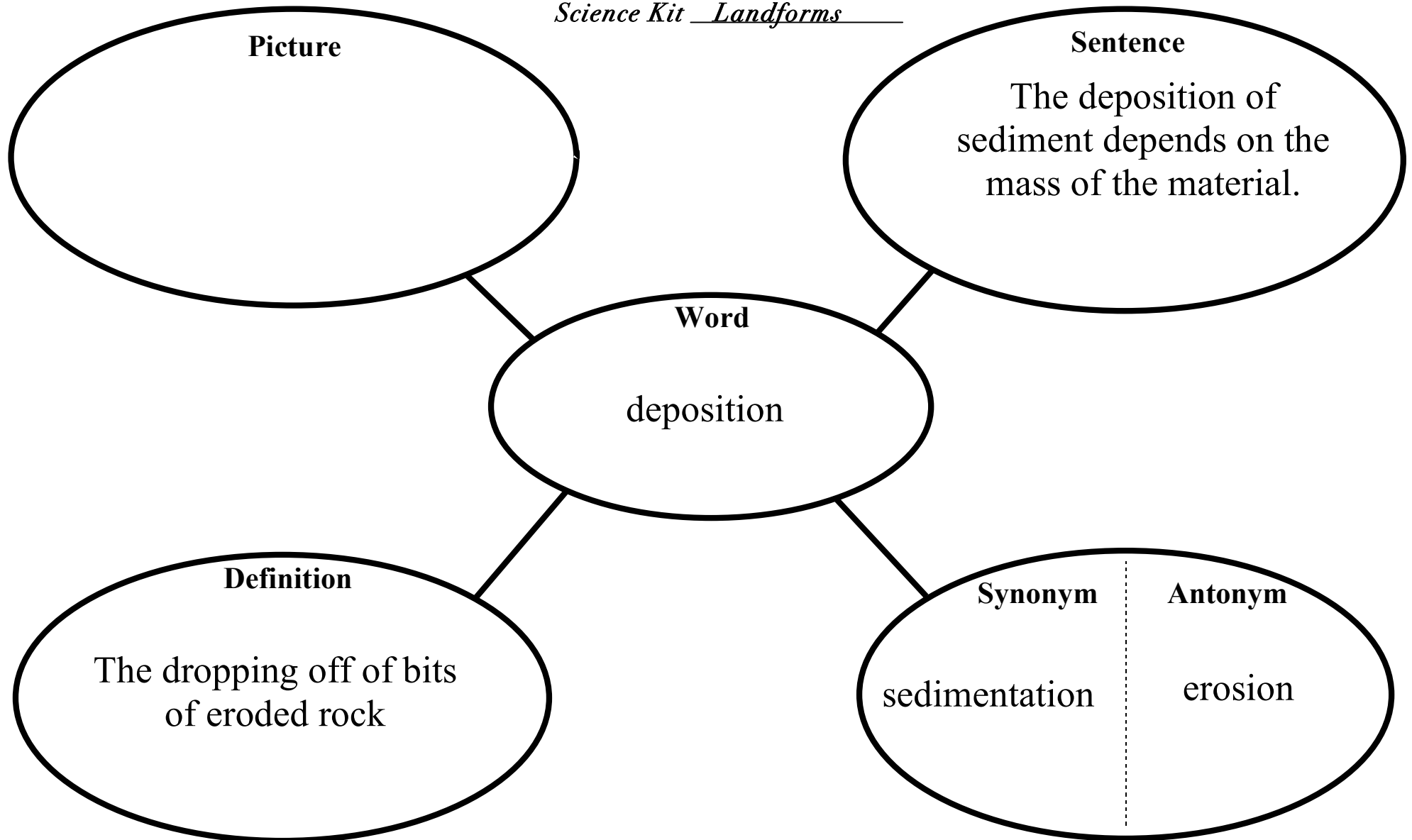


Essential Science Vocabulary

Grade 5

SCoS Goal 2

Science Kit Landforms

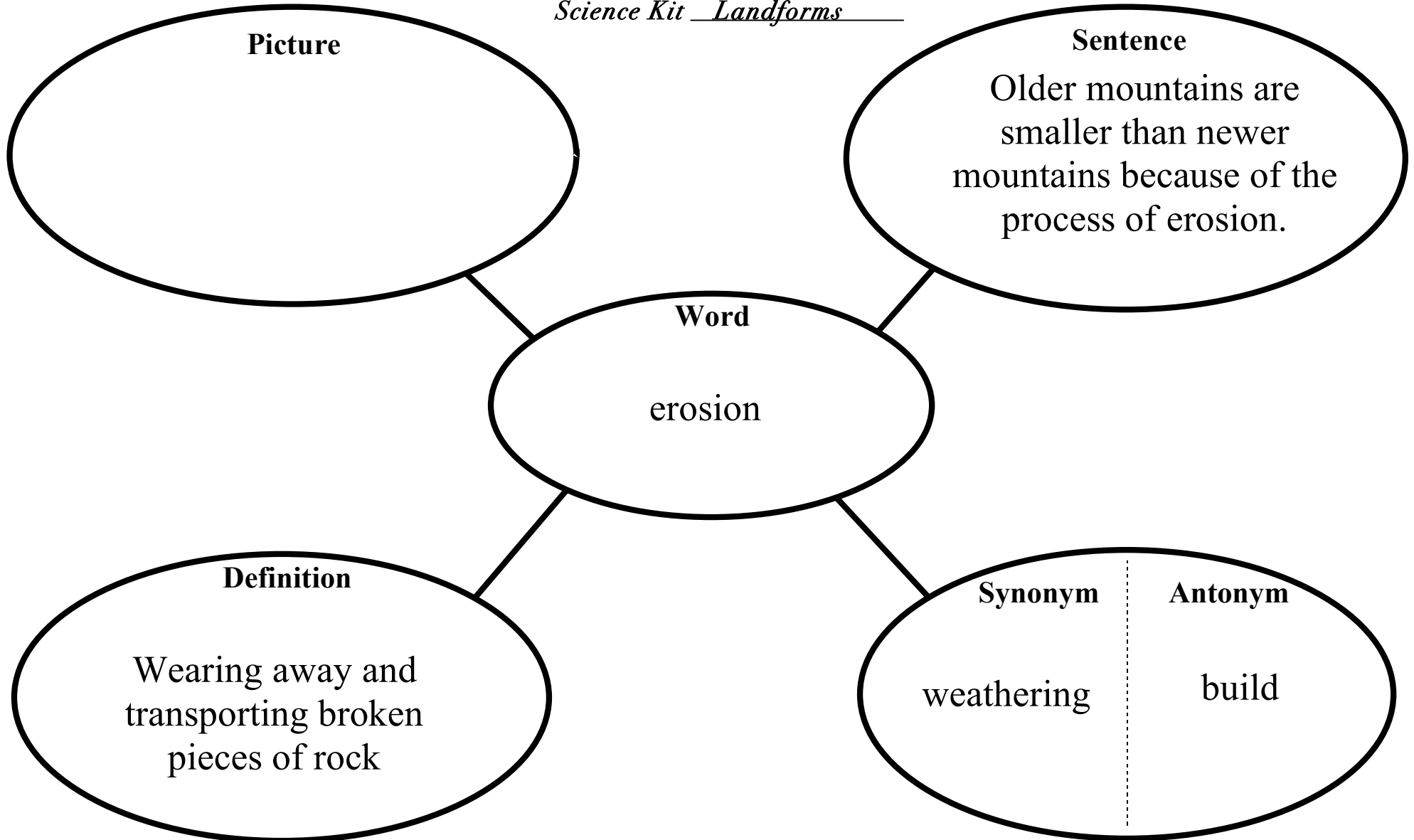


Essential Science Vocabulary

Grade 5

SCoS Goal 2

Science Kit Landforms

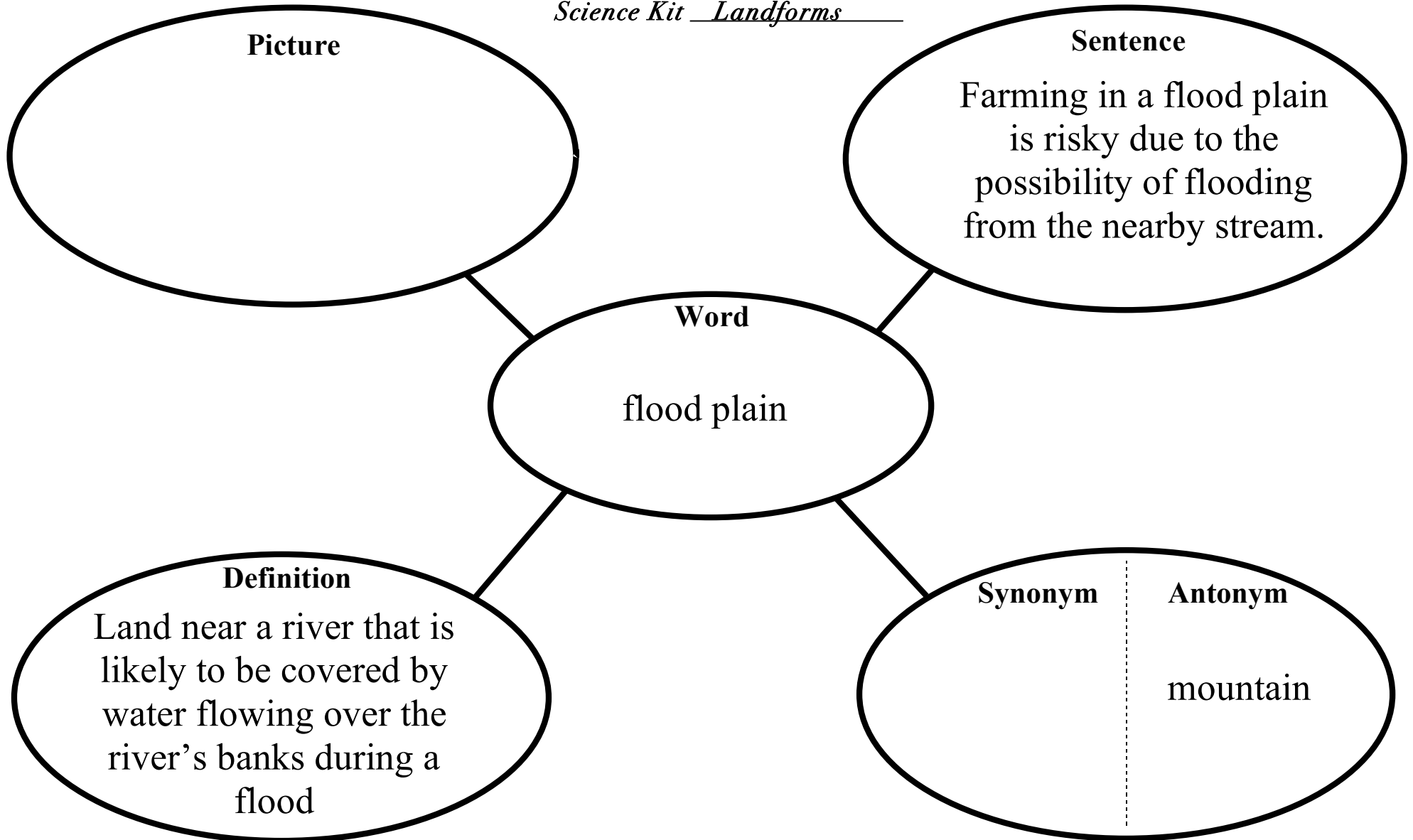


Essential Science Vocabulary

Grade 5

SCoS Goal 2

Science Kit Landforms

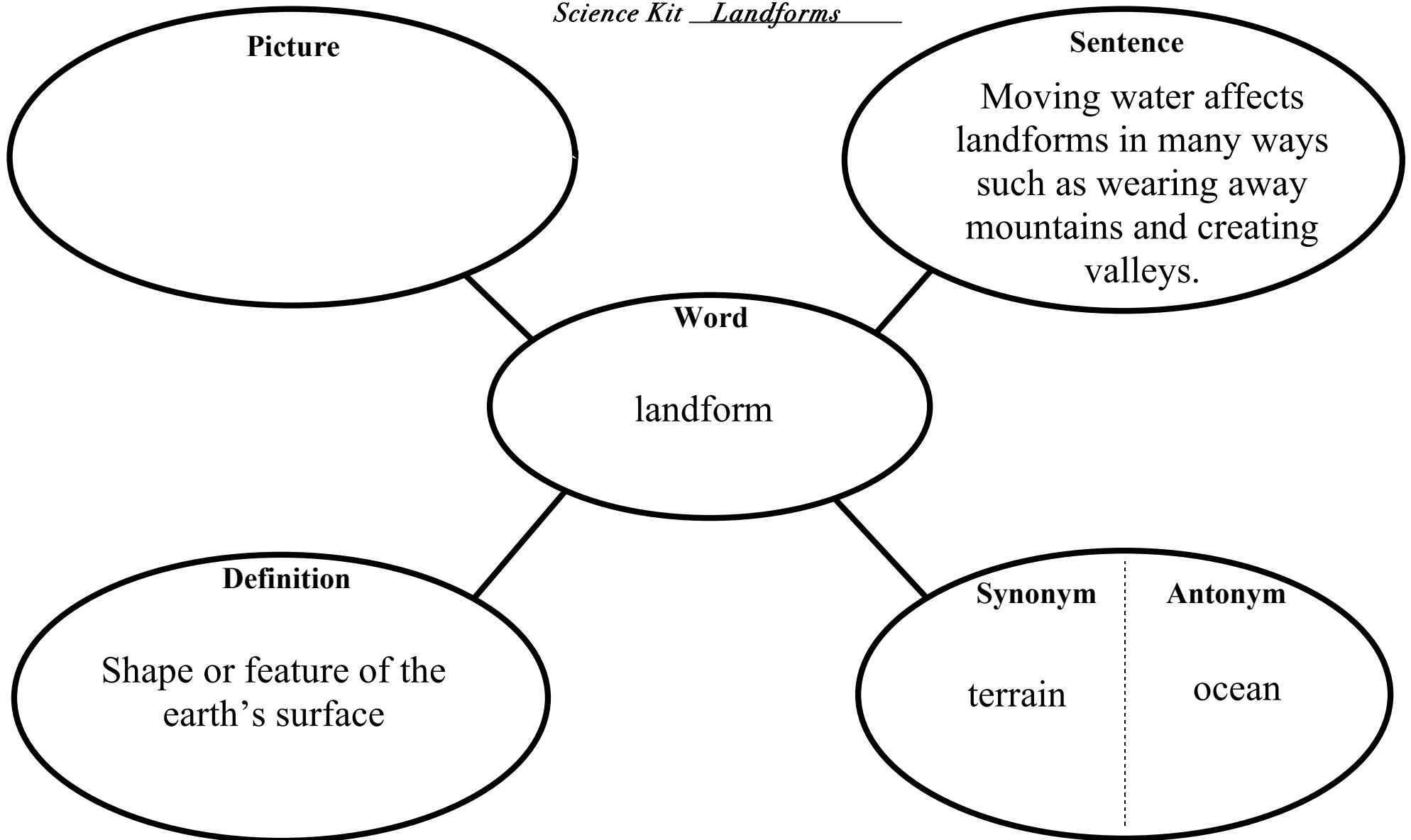


Essential Science Vocabulary

Grade 5

SCoS Goal 2

Science Kit Landforms

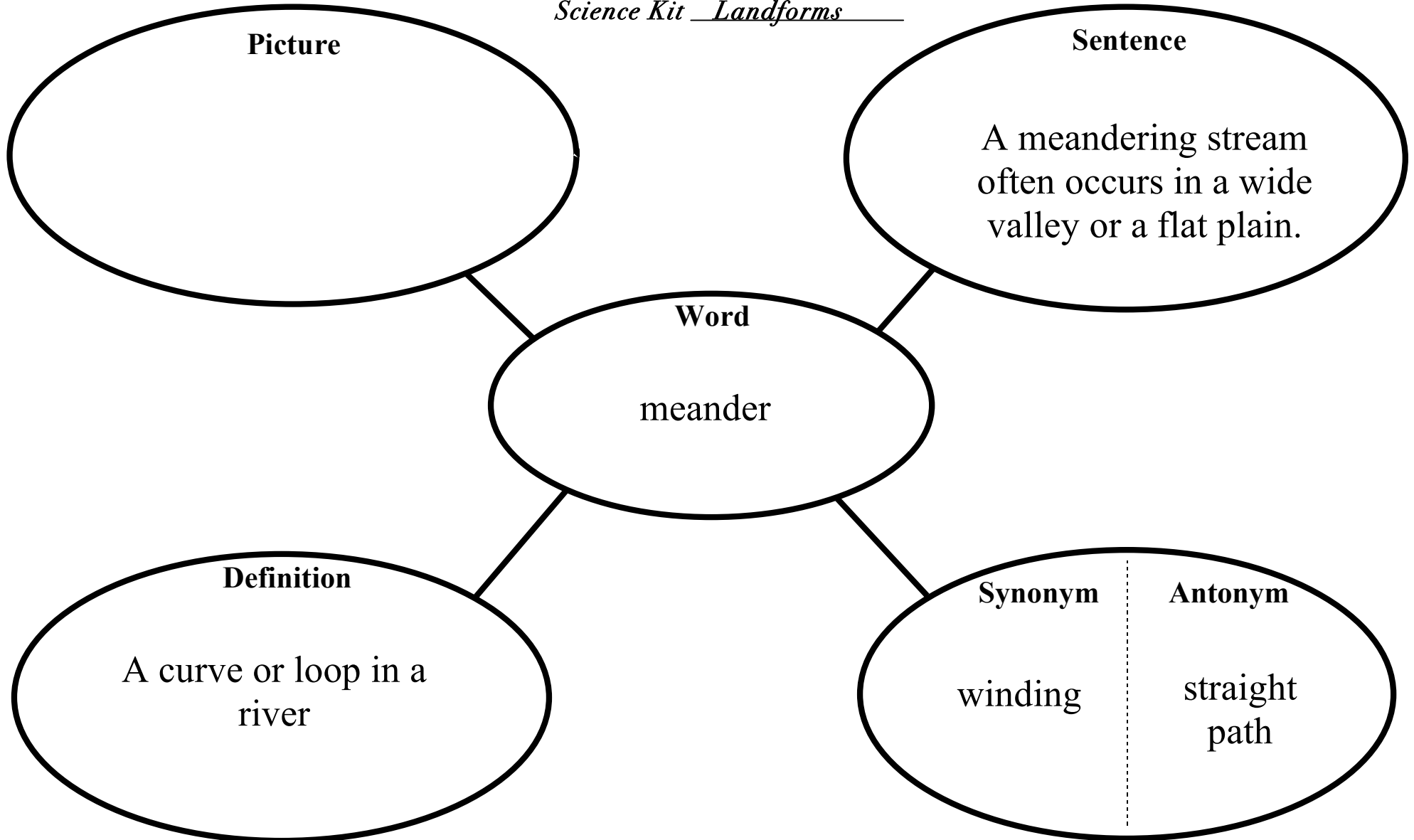


Essential Science Vocabulary

Grade 5

SCoS Goal 2

Science Kit Landforms

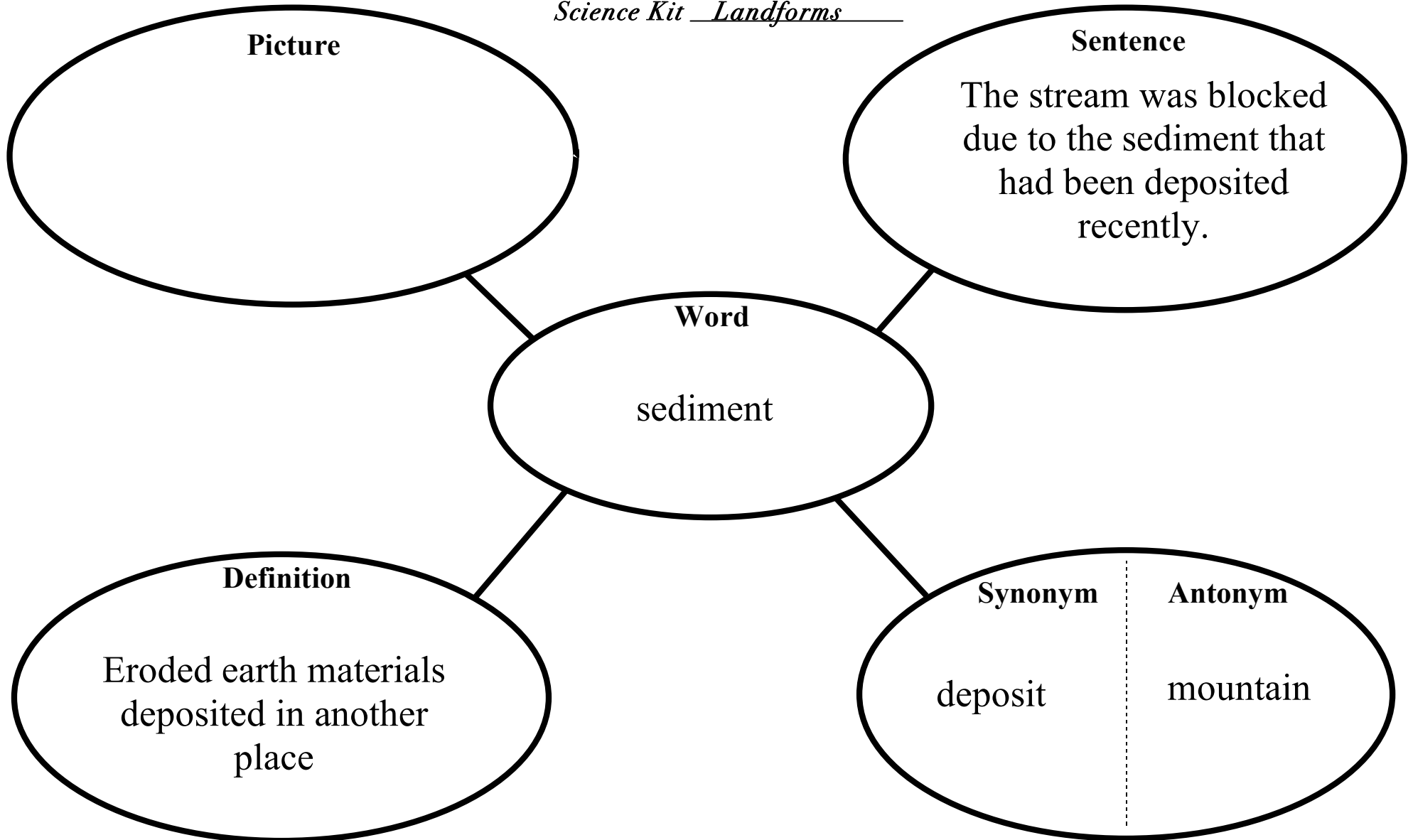


Essential Science Vocabulary

Grade 5

SCoS Goal 2

Science Kit Landforms

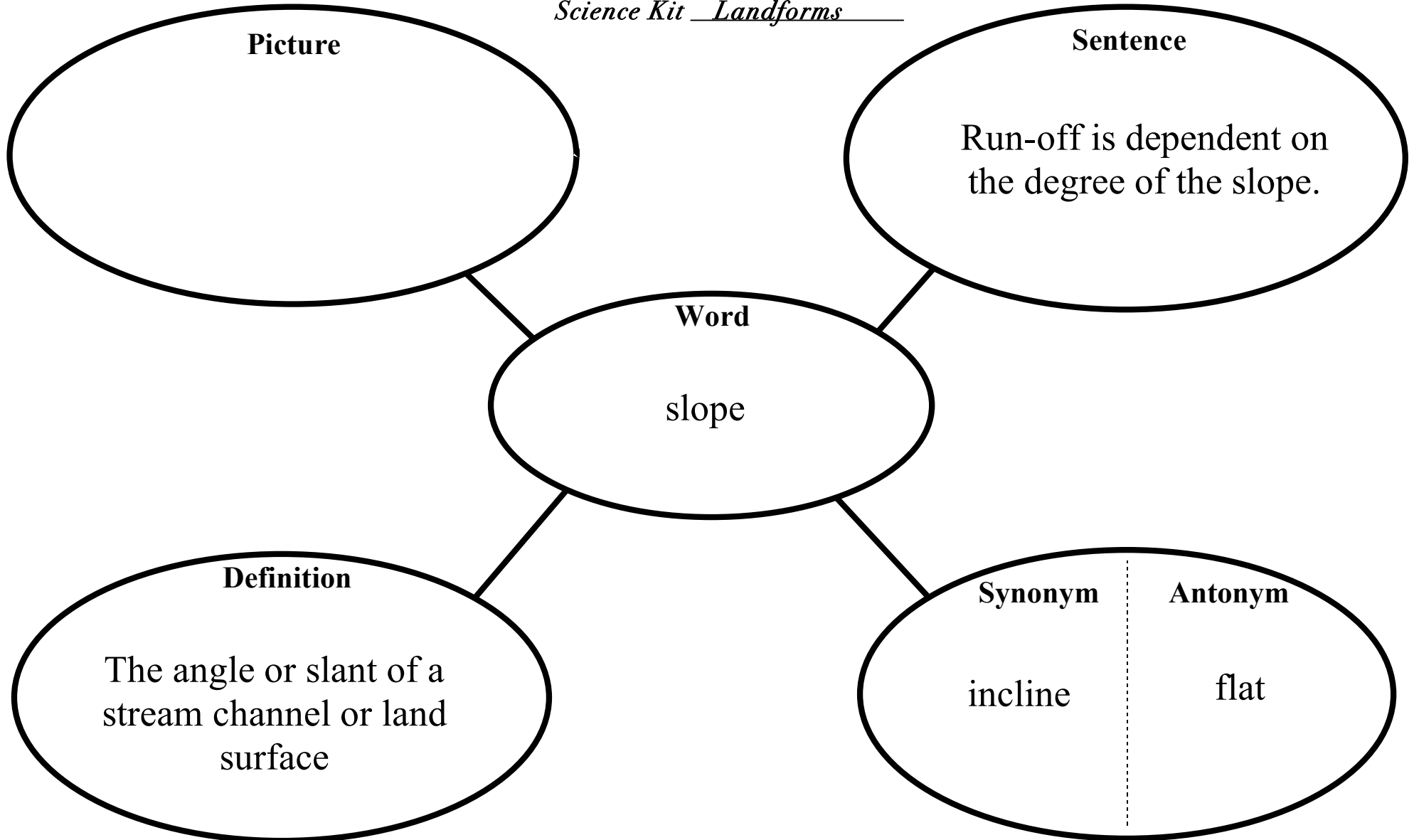


Essential Science Vocabulary

Grade 5

SCoS Goal 2

Science Kit Landforms

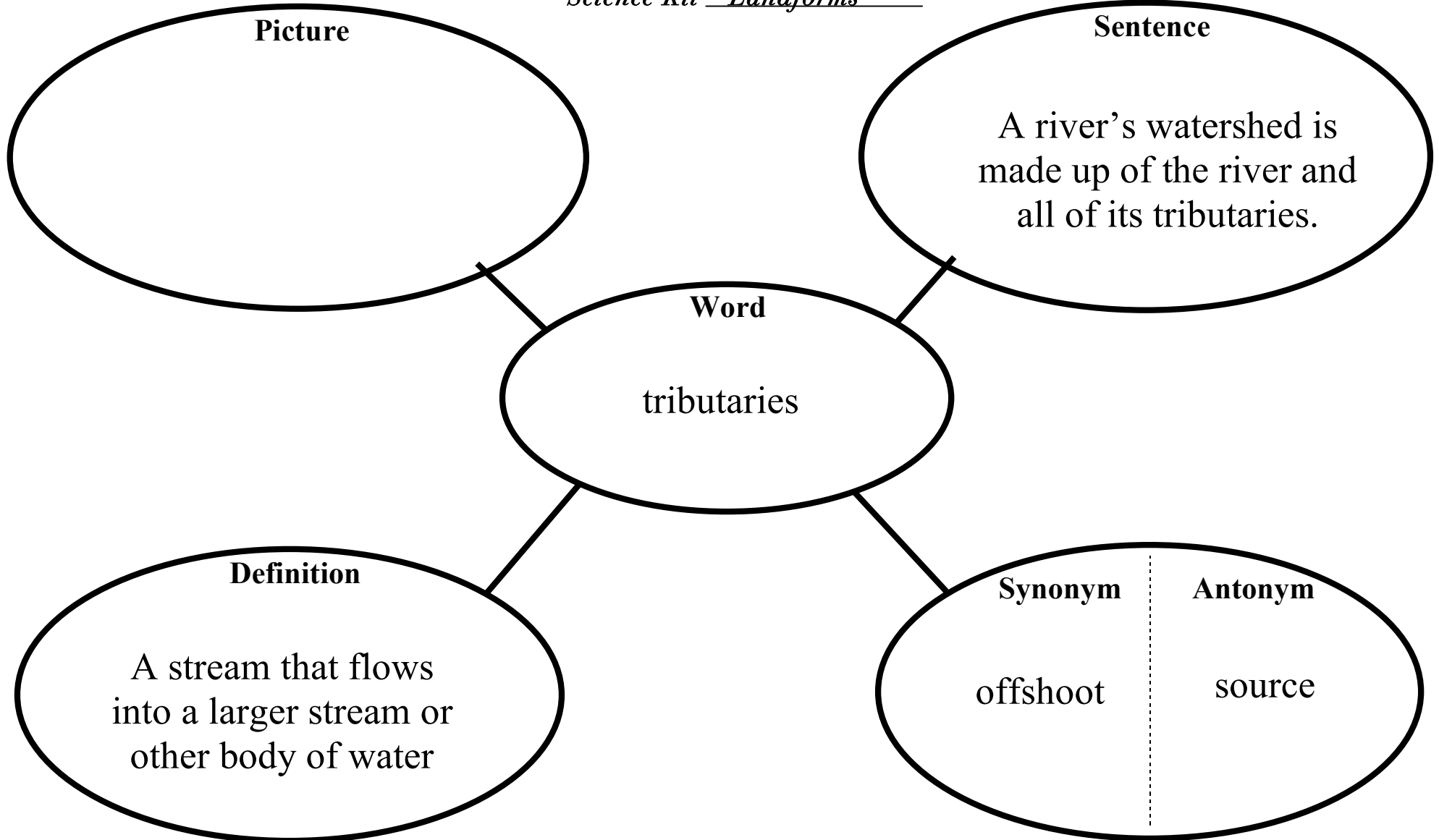


Essential Science Vocabulary

Grade 5

SCoS Goal 2

Science Kit Landforms

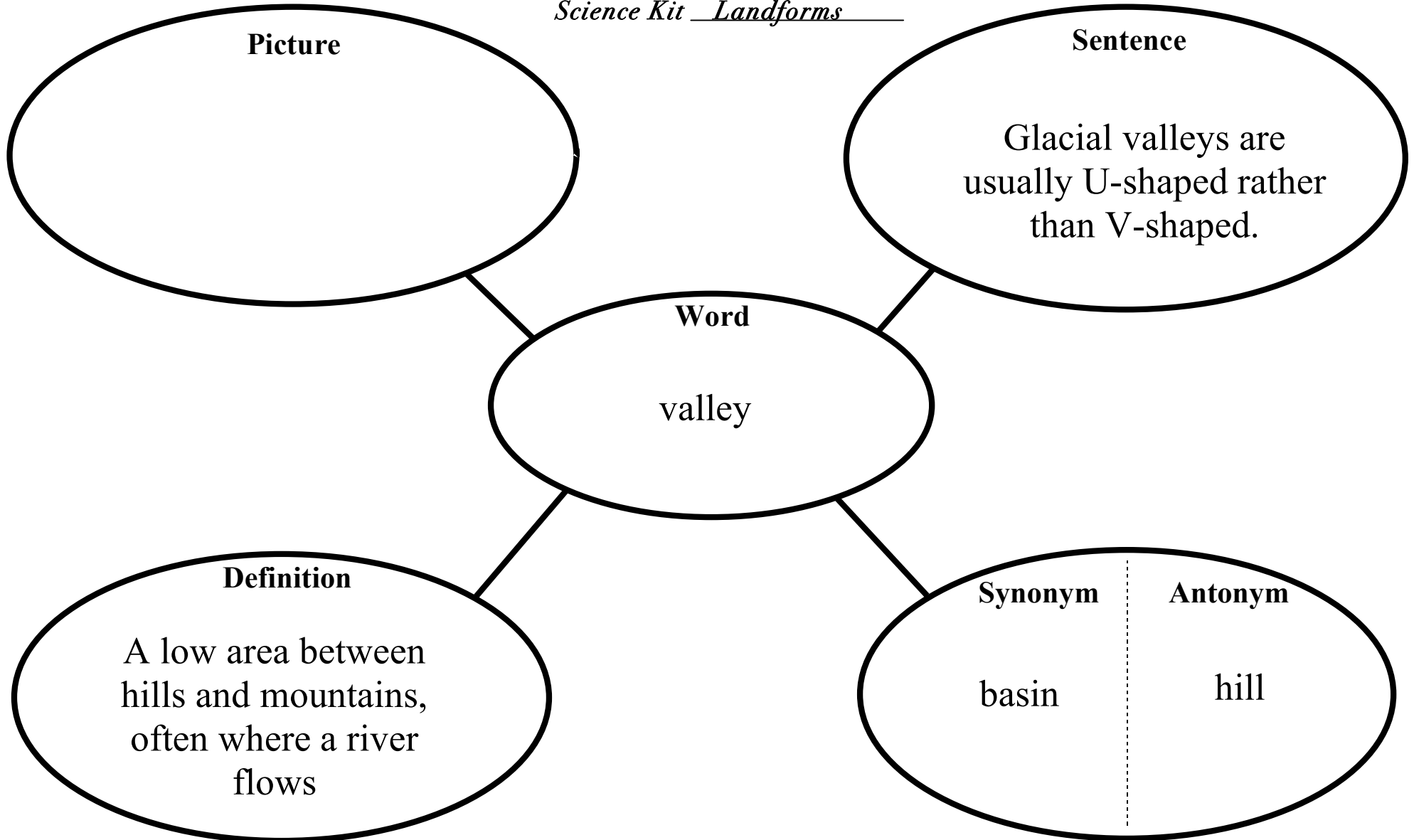


Essential Science Vocabulary

Grade 5

SCoS Goal 2

Science Kit Landforms

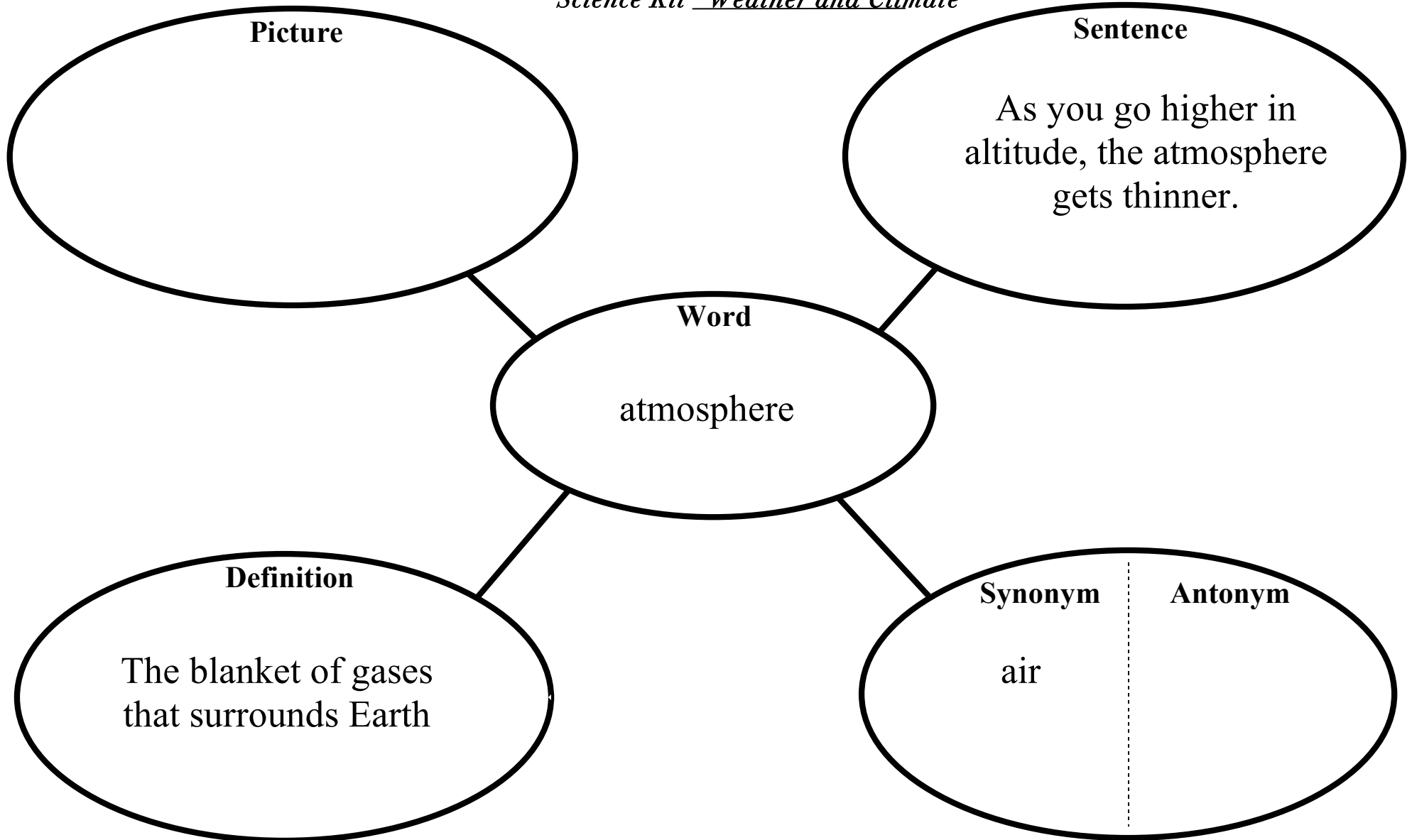


Essential Science Vocabulary

Grade 5

SCoS Goal 3

Science Kit Weather and Climate

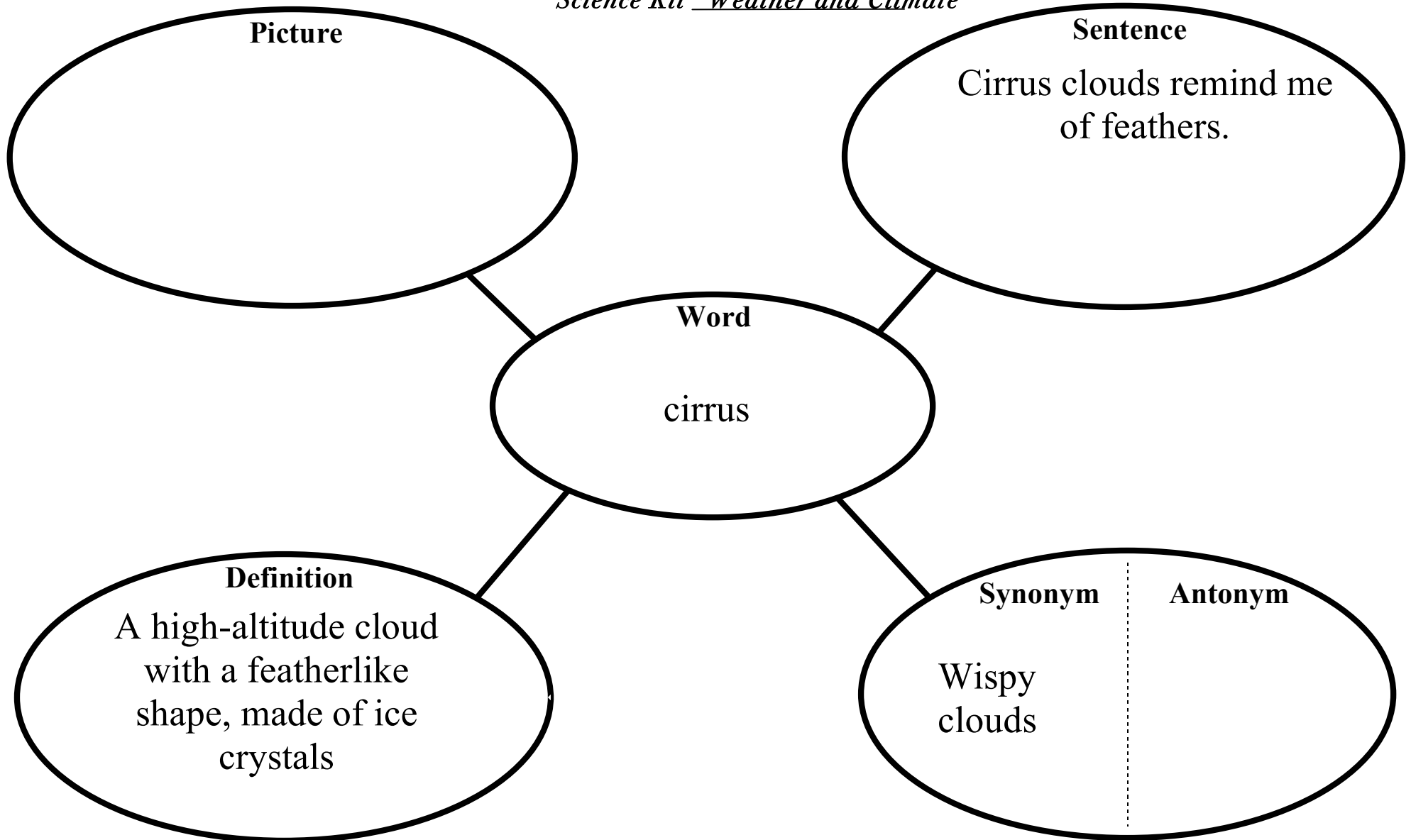


Essential Science Vocabulary

Grade 5

SCoS Goal 3

Science Kit Weather and Climate

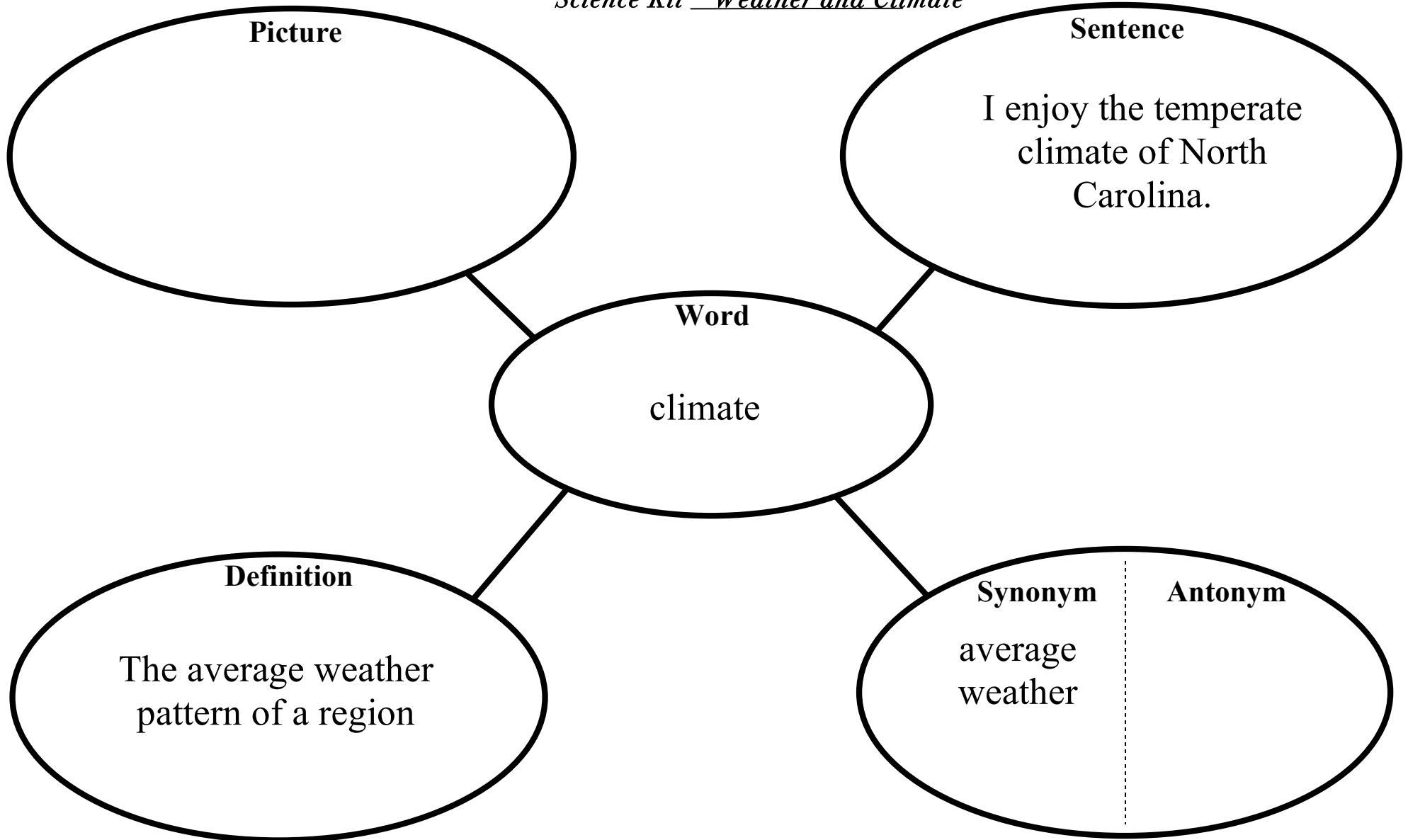


Essential Science Vocabulary

Grade 5

SCoS Goal 3

Science Kit Weather and Climate

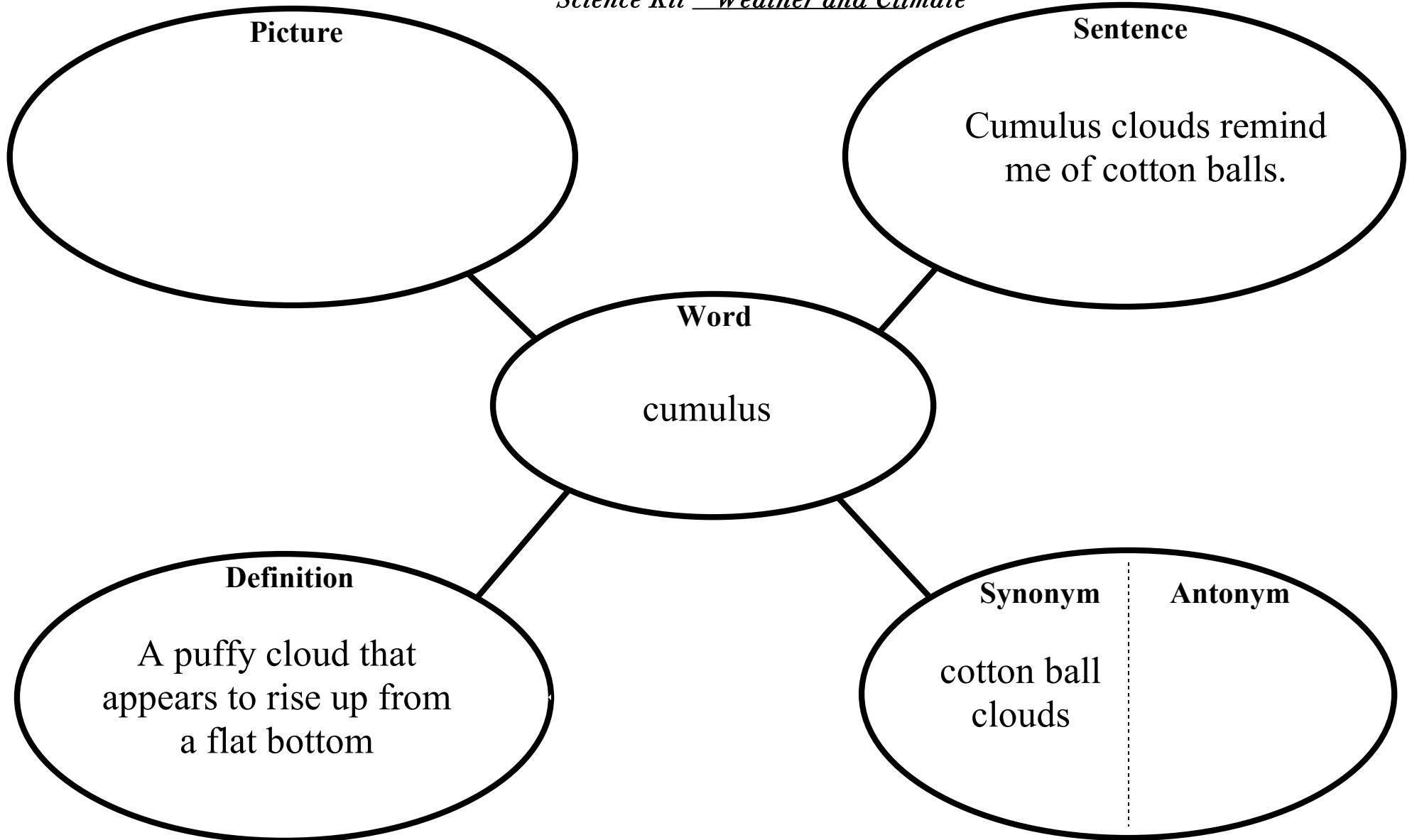


Essential Science Vocabulary

Grade 5

SCoS Goal 3

Science Kit Weather and Climate

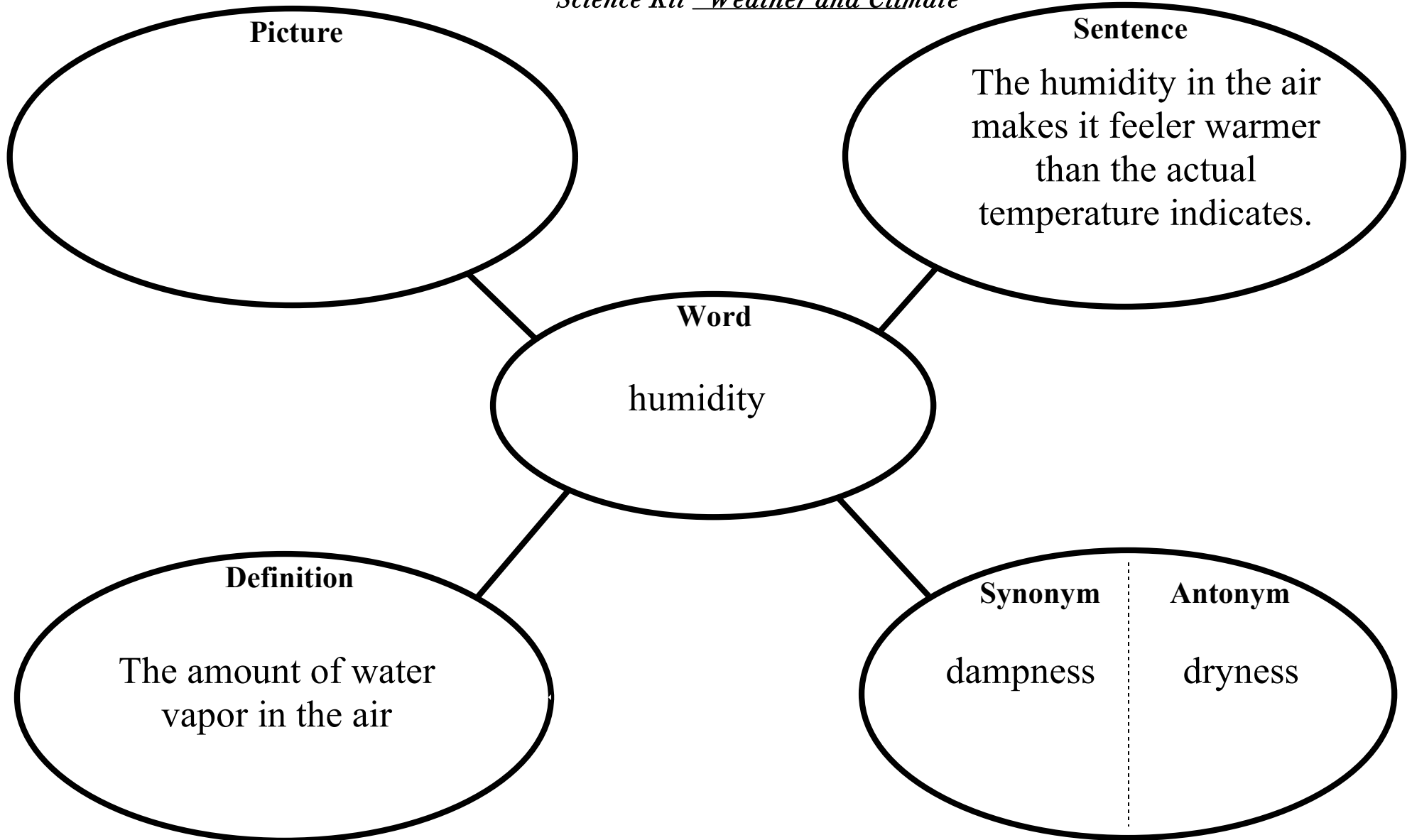


Essential Science Vocabulary

Grade 5

SCoS Goal 3

Science Kit Weather and Climate

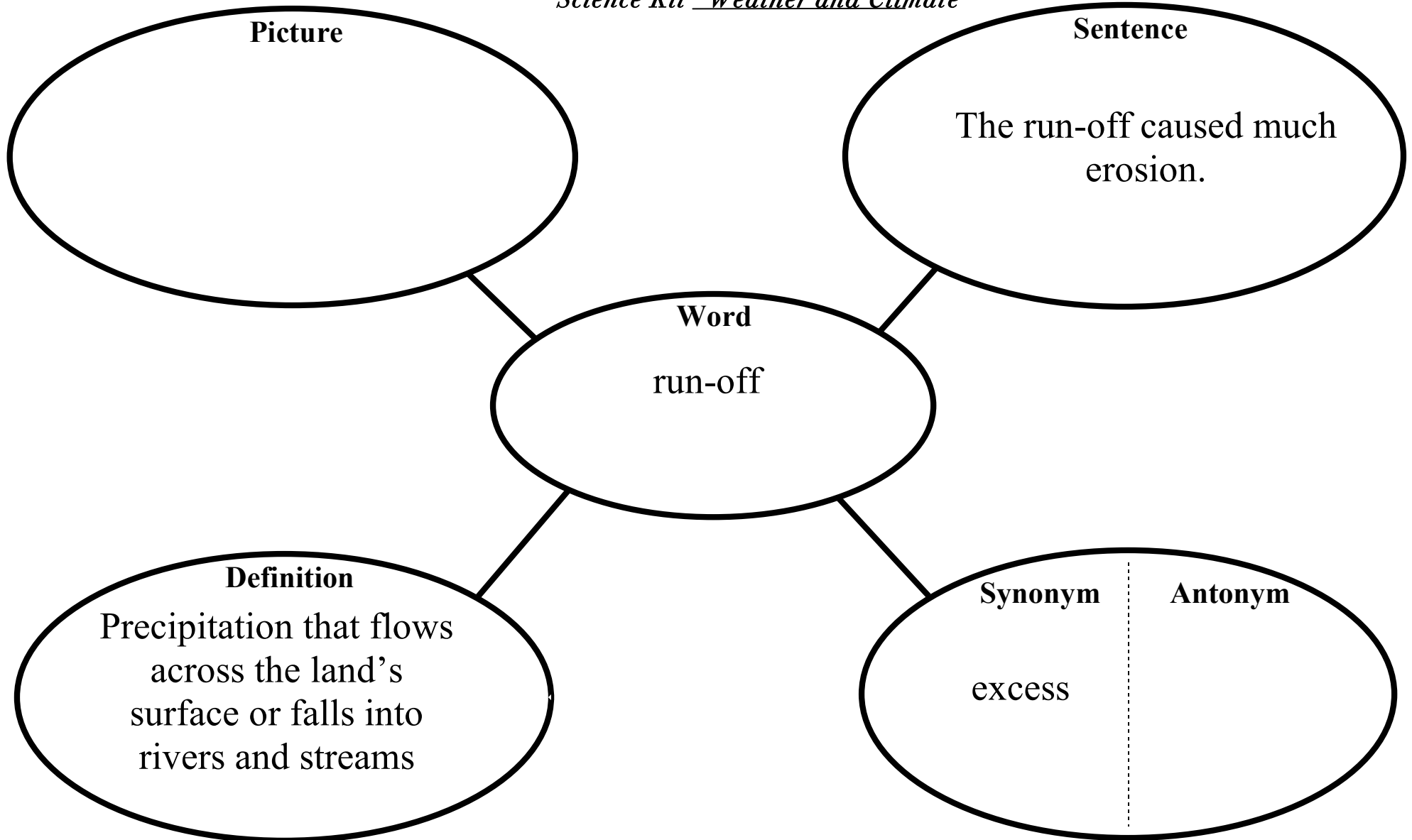


Essential Science Vocabulary

Grade 5

SCoS Goal 3

Science Kit Weather and Climate

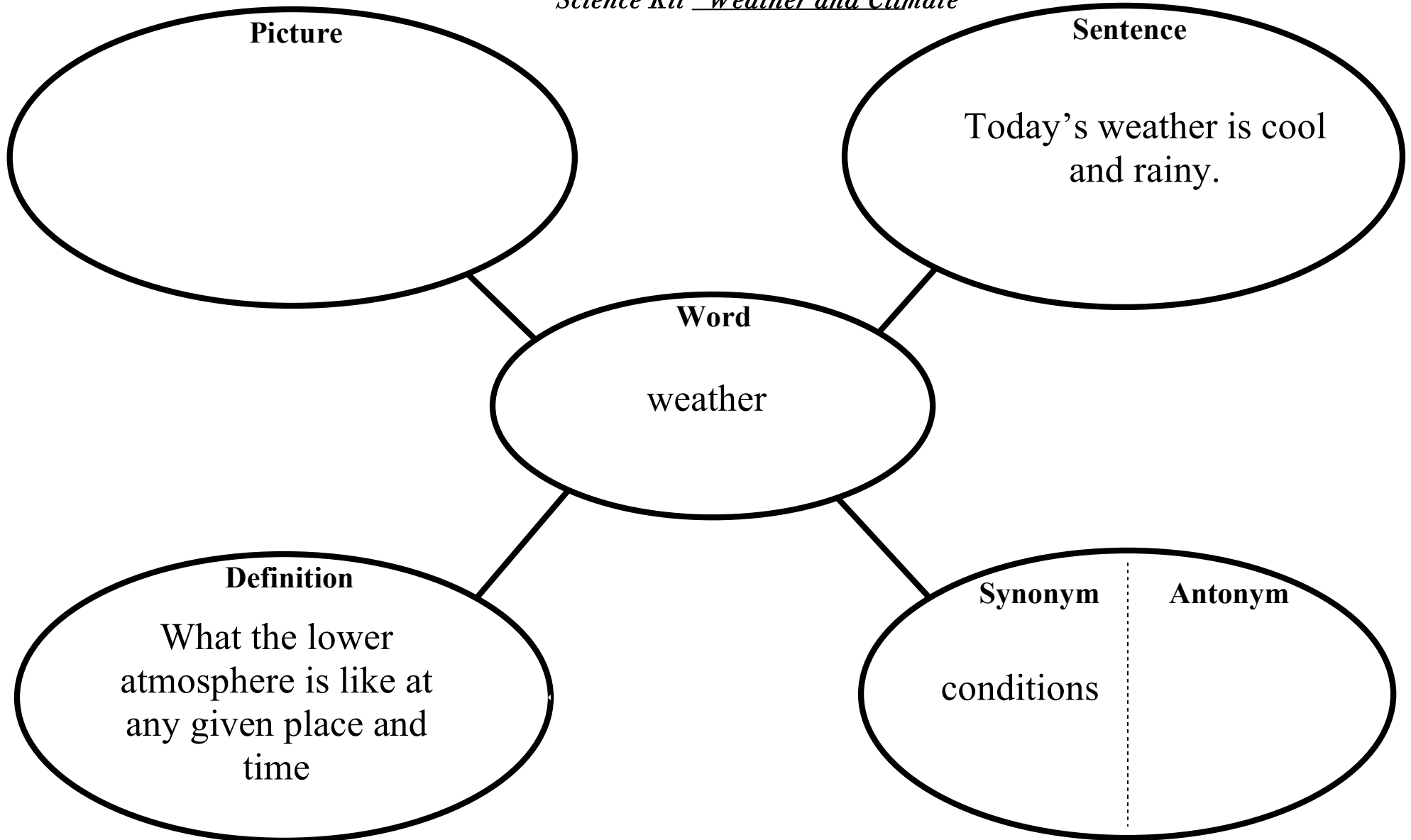


Essential Science Vocabulary

Grade 5

SCoS Goal 3

Science Kit Weather and Climate

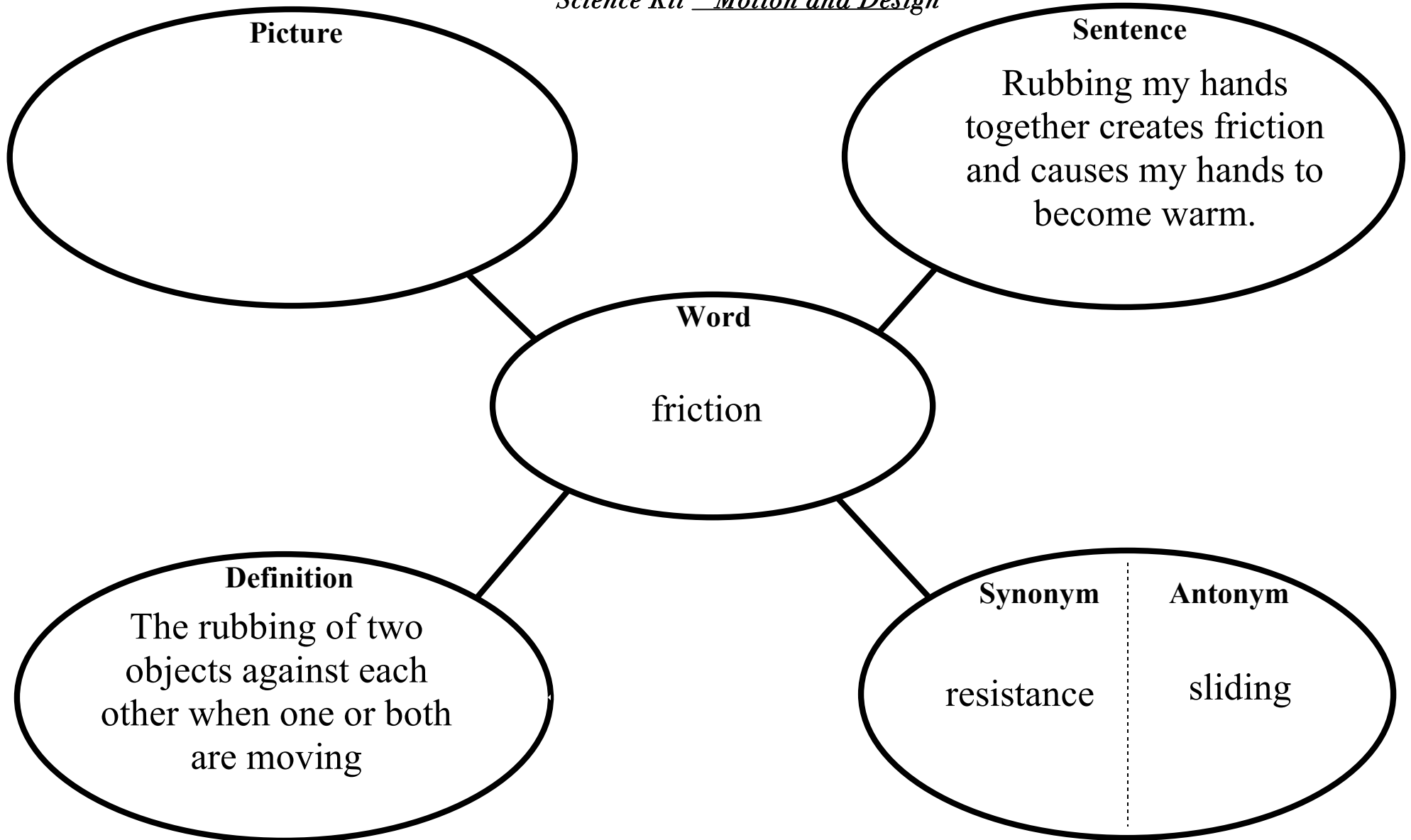


Essential Science Vocabulary

Grade 5

SCoS Goal 4

Science Kit Motion and Design

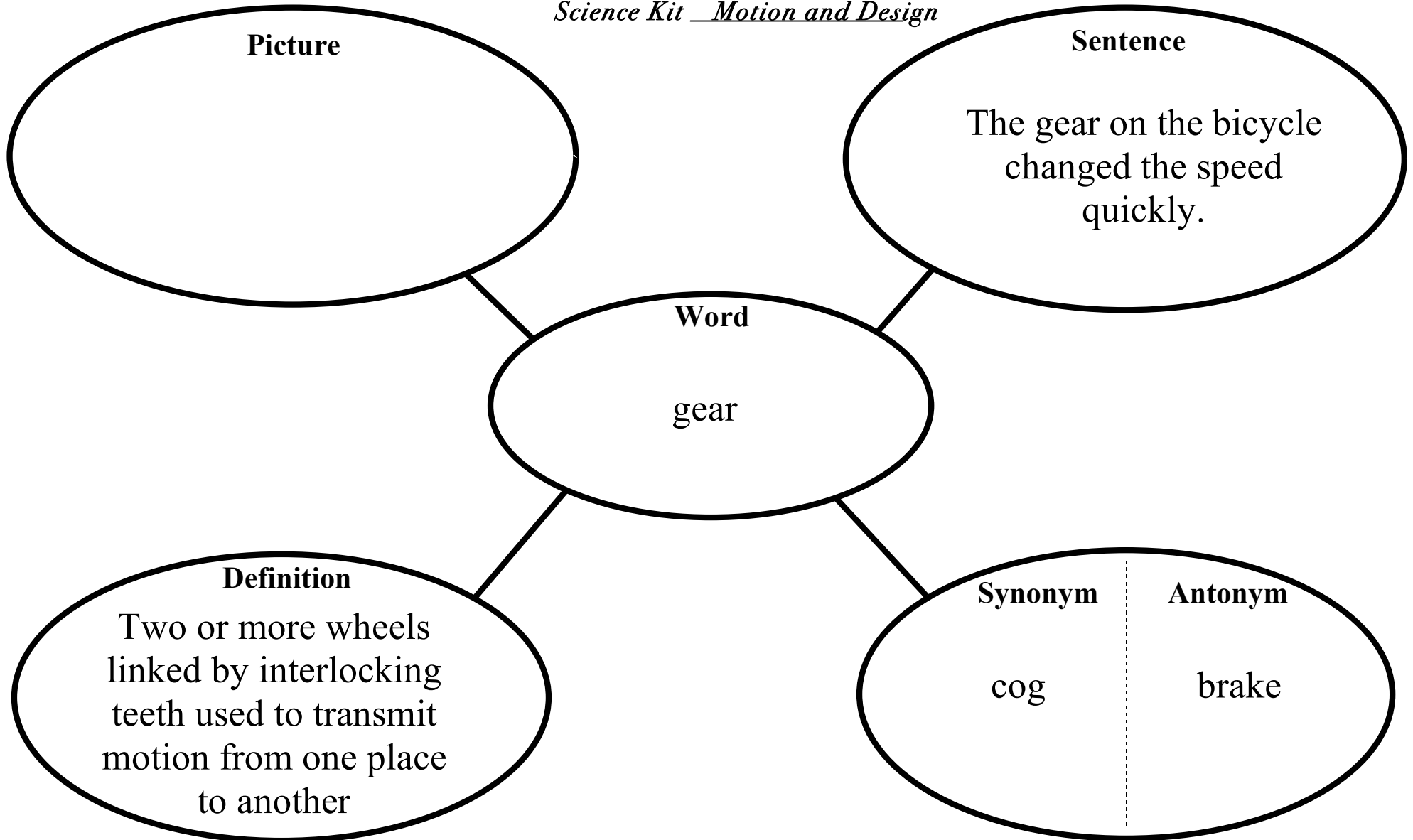


Essential Science Vocabulary

Grade 5

SCoS Goal 4

Science Kit Motion and Design

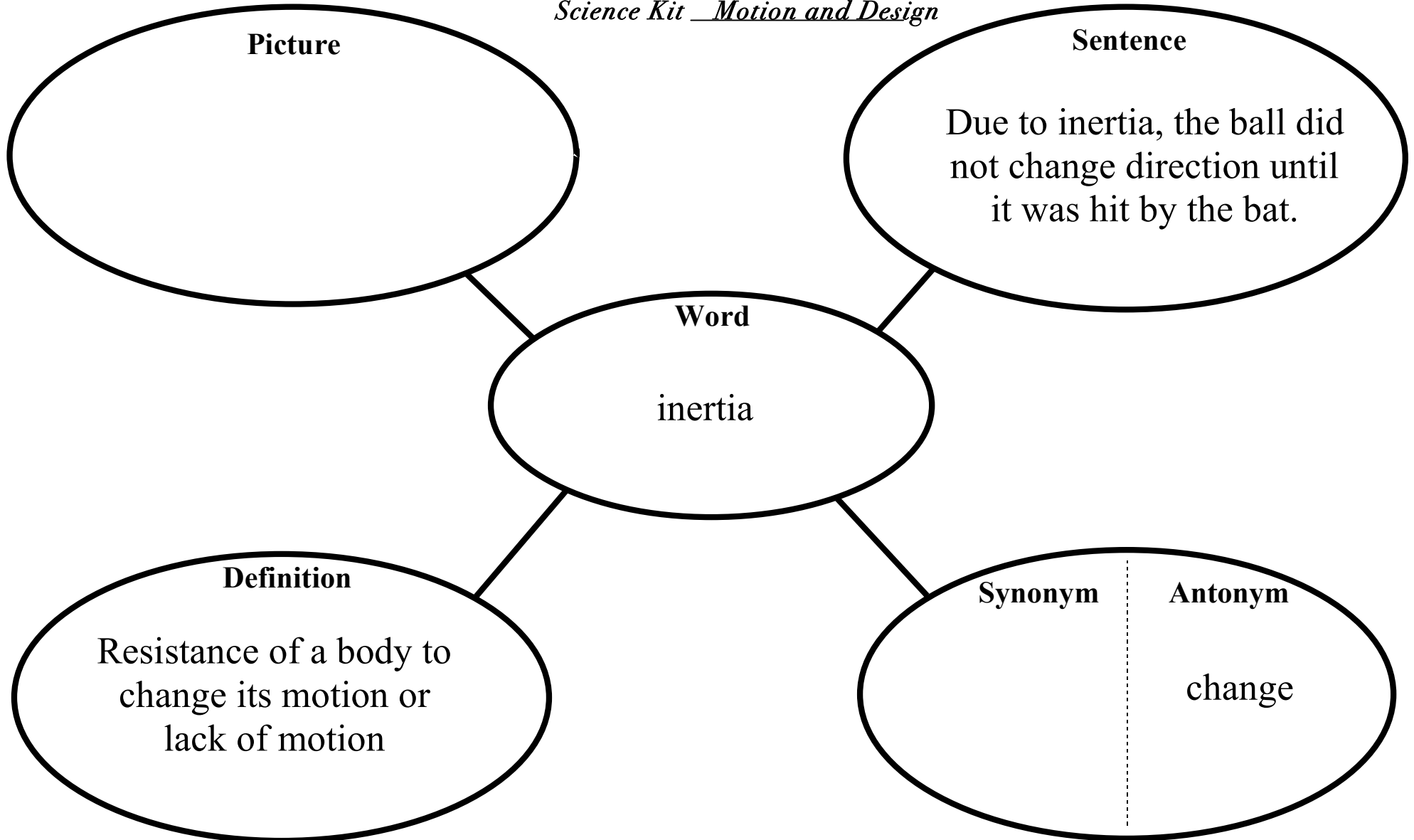


Essential Science Vocabulary

Grade 5

SCoS Goal 4

Science Kit Motion and Design

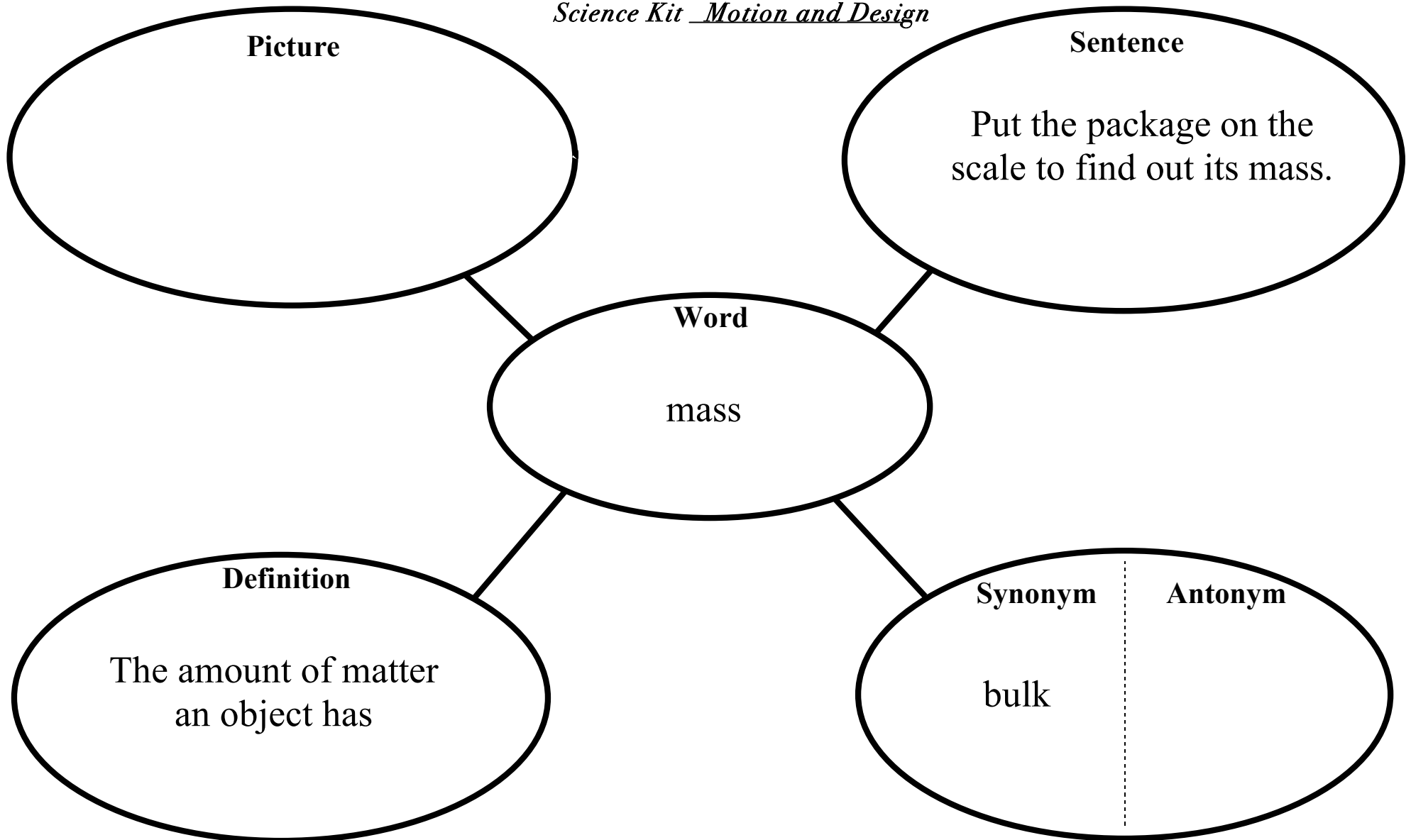


Essential Science Vocabulary

Grade 5

SCoS Goal 4

Science Kit Motion and Design

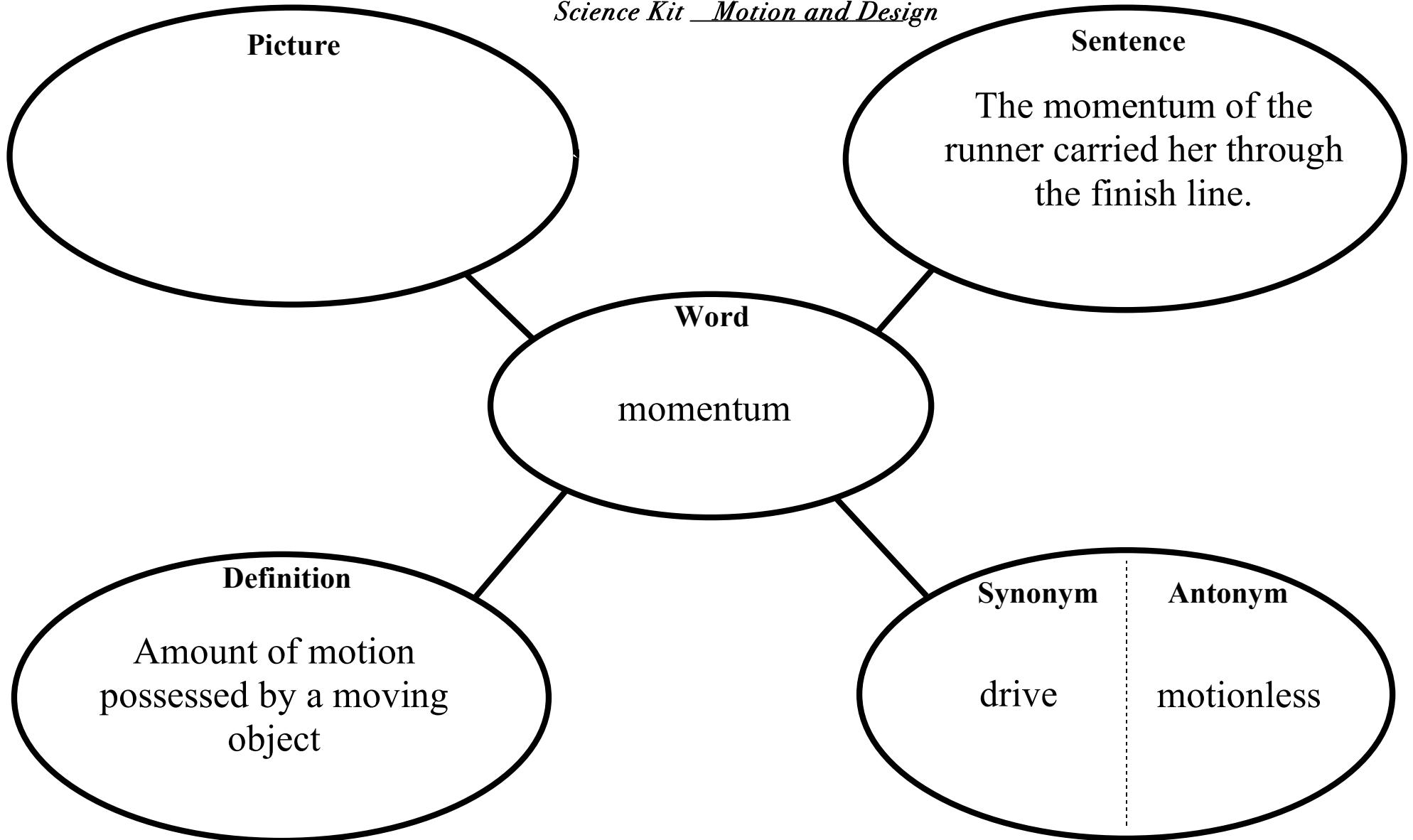


Essential Science Vocabulary

Grade 5

SCoS Goal 4

Science Kit Motion and Design

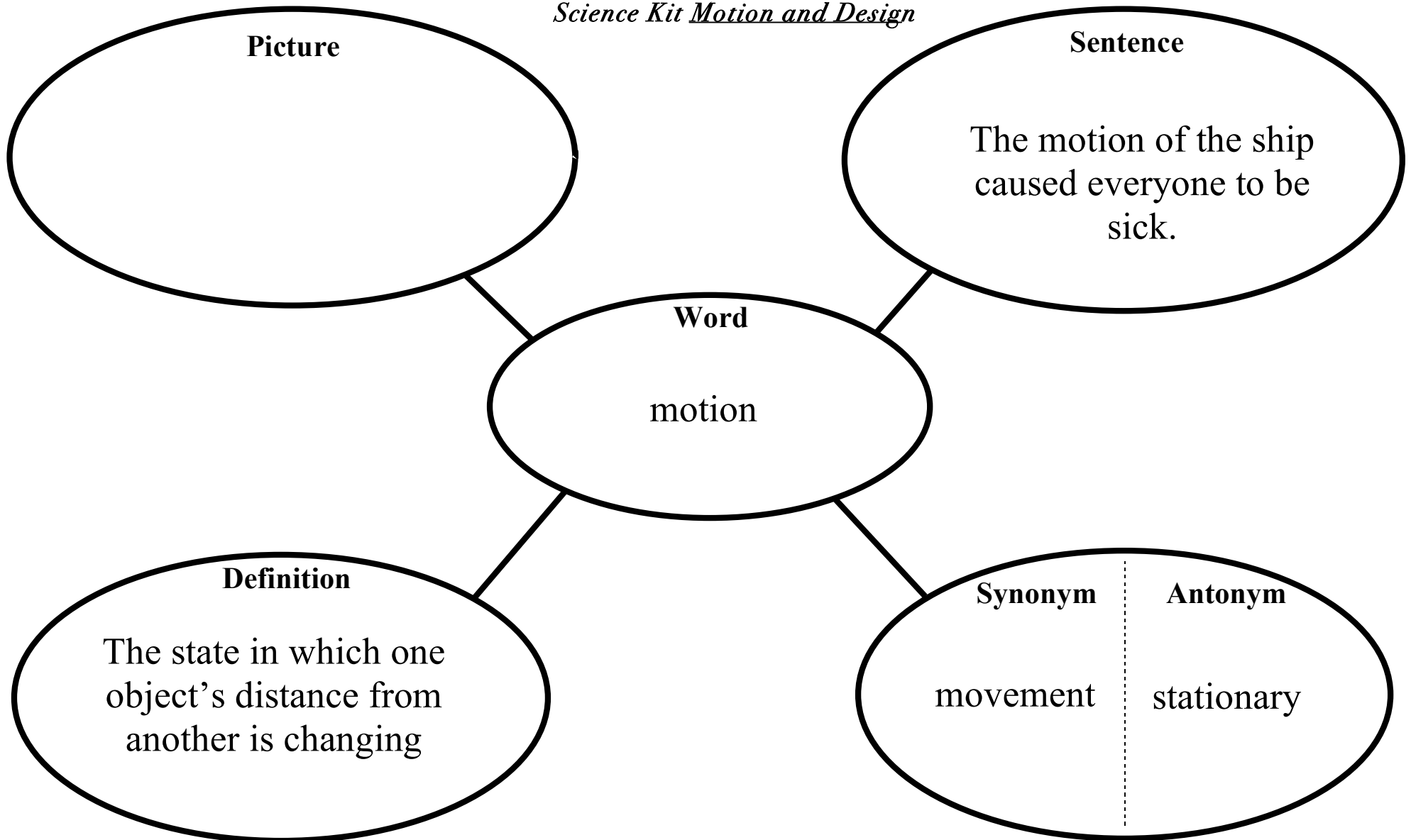


Essential Science Vocabulary

Grade 5

SCoS Goal 4

Science Kit Motion and Design

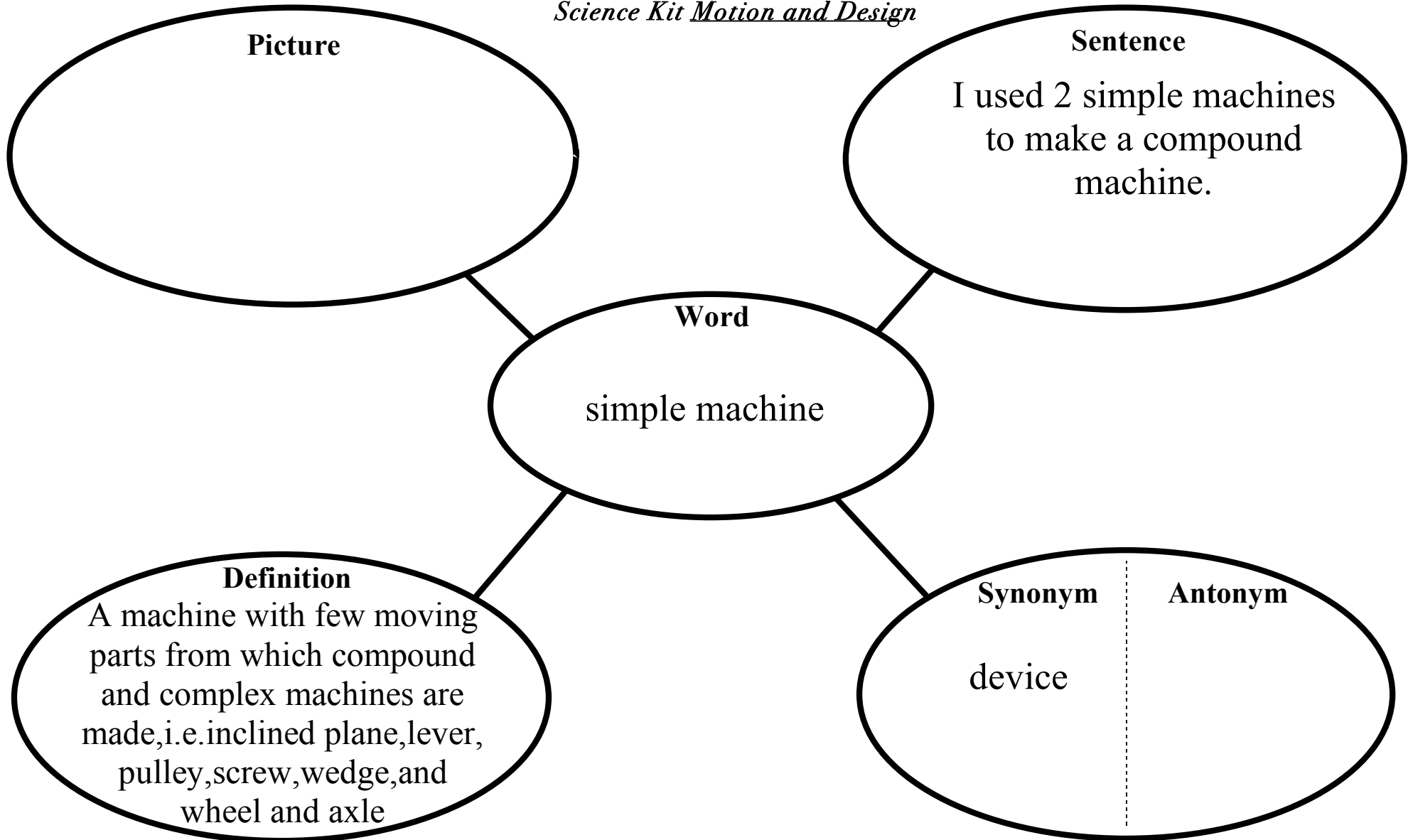


Essential Science Vocabulary

Grade 5

SCoS Goal 4

Science Kit Motion and Design



ABC Brainstorm

See www.readingquest.org for more directions

What Is An ABC Brainstorm?

Before having your students talk about a major topic, it's essential to activate their background knowledge about it. One way to do this is the ABC Brainstorm. The idea is meant to be fairly simple. Students try to think of a word or phrase associated with the topic, matched to each letter of the alphabet.

How does it work?

Have students list all the letters of the alphabet down a sheet of paper (or use the printable ABC Brainstorm sheet available through ReadingQuest), leaving room beside each letter to write out the rest of a word or phrase. Let them work individually at first, thinking of as many words as they can that could be associated with the topic you identify. Do note: The topic should be big and general enough that students can actually think of a lot of possible terms. Then, in no particular order, let them begin filling in the blanks beside each letter of the alphabet. For instance, if the topic were **World War II**, students might list **Allies**, **Bombers**, **Concentration Camps**, **Dachau**, **Europe**, **French Resistance**, **Germany**, **Hitler**, **Italy**, **Japan**, and so on.

It seems to work well if you give students enough time to think of a lot of ideas, but then let them pair up or work in small groups to fill in blanks for letters they had not yet completed. In this way, you can let the brainstorming function like a Think-Pair-Share. This would be the "Pair" phase. Then, go around the room or get students to report out ("Share") possible terms for the different letters of the alphabet. Be open to a wide range of possibilities! Make sure students know that you're not looking for exact answers, just justifiable and relevant ones.

What Sorts of Topics Are Good for an ABC Brainstorm?

I say, keep it more broad and relevant. Topics like government, Islam, war (or a specific war), the Great Depression, or a broad geographical region are probably pretty fertile for an ABC Brainstorm. Topics previously studied, about which students know much, can be good recap brainstorms. This might include topics like The Gilded Age, Progressivism, a given decade (the Sixties or the Roaring Twenties, for instance), or capitalism. It's doubtful whether a narrow topic (Saddam Hussein, Circular Flow Diagram, the Constitution) would provide enough latitude for a good ABC Brainstorm, but you won't know until you try.

ALPHA • BLOCKS

ABC

DEF

GHI

JKL

MN

OPQ

RST

UVW

XYZ

Credited to Janet Allen

Analyzing Vocabulary

Prefix A prefix change the meaning of a word	Root Word	Ending Endings change tense or singular to plural	Suffix A suffix changes what type of word it can be (adjective, noun, verb, adverb)

Bingo Vocabulary

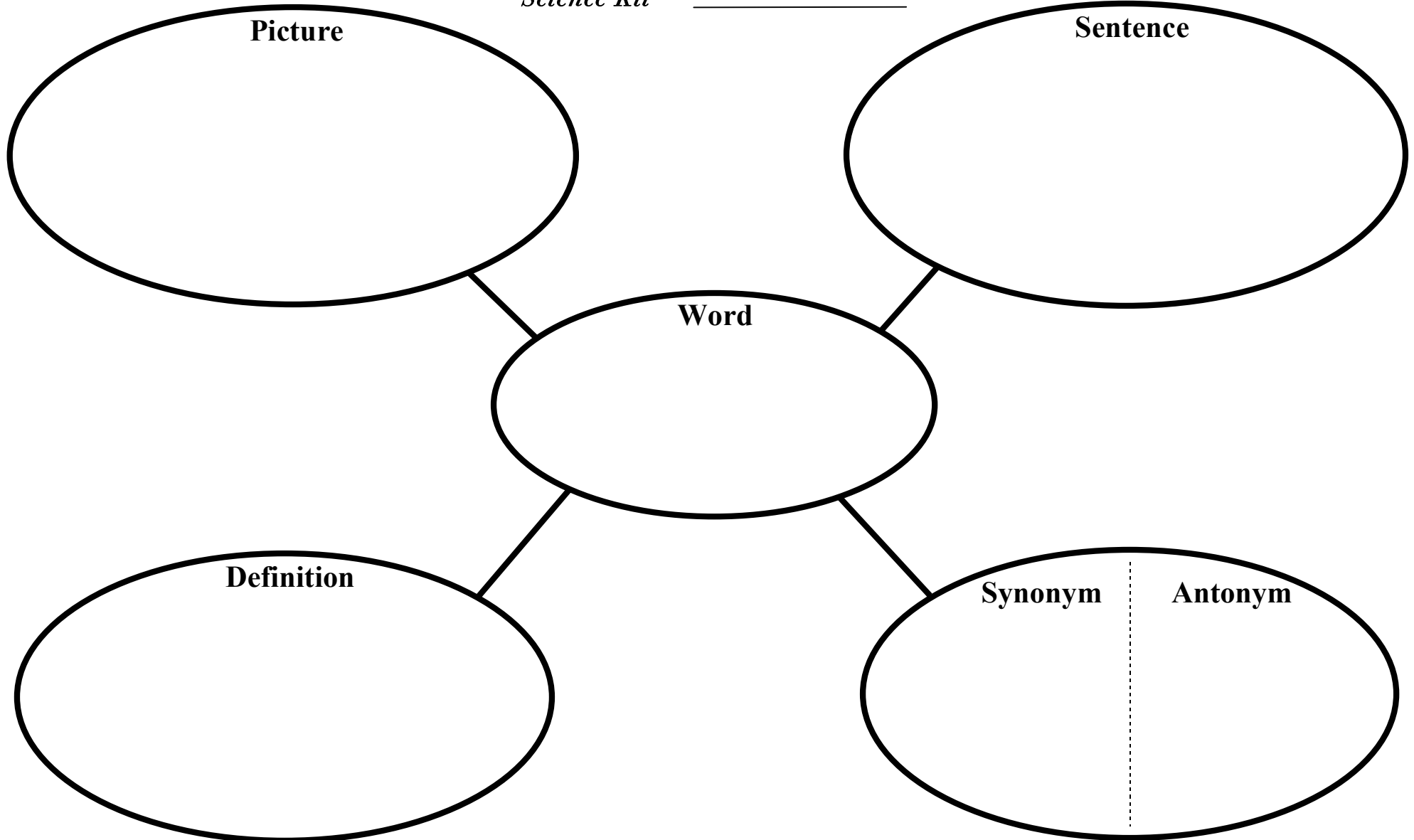
		FREE SPACE		

Essential Science Vocabulary

Grade _____

SCoS Goal _____

Science Kit _____



Science Essential Vocabulary
Grade _____

Definition	Synonym
	Antonym
Vocabulary Word	
Sentence	Picture

Science Essential Vocabulary

Grade_____

Word

Definition

Sentence

Picture

Science Essential Vocabulary
Grade _____

Vocabulary Word	What I Know about the word.	Synonym
		Antonym
Who uses this word?		
My definition	Picture	
Definition		
Use word in a sentence.		

Compound Words

People		Sports
	Objects	
Food		Animals

How many compound words can you find to fit into the categories above?

Name _____

Date _____

GRAPHIC ORGANIZER

Concept Definition Map

What is it?

Category

What is it like?

Property

Main Concept

Property

Property

Property

What are some examples ?

Illustration

Illustration

Illustration

New Definition _____

Copyright © Scholastic Inc. All rights reserved. This page may be photocopied for use with students.

Strategies for Reading Comprehension
Concept of Definition Map
[Schwartz & Raphael, 1985]



Concept of Definition Maps

The idea is that it's not enough to know how a word is defined in a dictionary sense. Consider what happens with the following word that many 9th graders reading *To Kill a Mockingbird* may not have encountered before:

ecclesiastical

Definition:

"of or related to a church"

Example of Appropriate Use in a Sentence:

The minister's ecclesiastical robes danced in echo to his wild gestures from the pulpit.

Example of Sentence Written by a Student:

Church members are reminded to park in the ecclesiastical parking lot, rather than in the shopping center across the street.

Besides the fact that "ecclesiastical" is probably not central to students' understanding of the themes of *To Kill a Mockingbird*, it remains that the definition they were given is too one-dimensional. They have not experienced its richness of meaning, nor the shades of meaning that help us distinguish words more precisely from one another. The best way for students to comprehend a new vocabulary term is for them to experience it. A concept of definition map helps broaden their experience of new words.

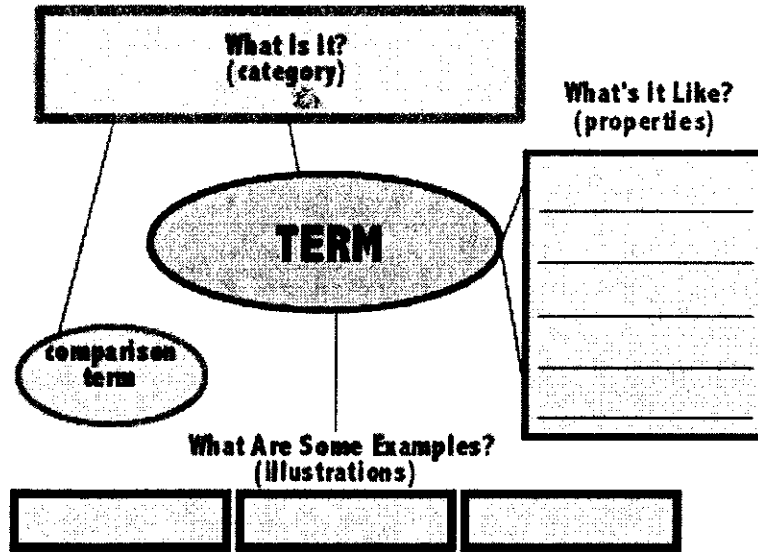
How Do They Work?

Concept of Definition maps consider words in light of three properties or attributes:

- category - What Is It?
- properties - What Is It Like?

- illustrations - What Are Some Examples?

Help Me Visualize A CD Map. Got a good graphic for me?



Download and Print:

- [Concept of Definition Map](#) (shown above)



[home](#) [overview](#) [foundations](#) [strategies](#) [frameworks](#) [resources](#)

This site was created
and is maintained by
Raymond Jones.

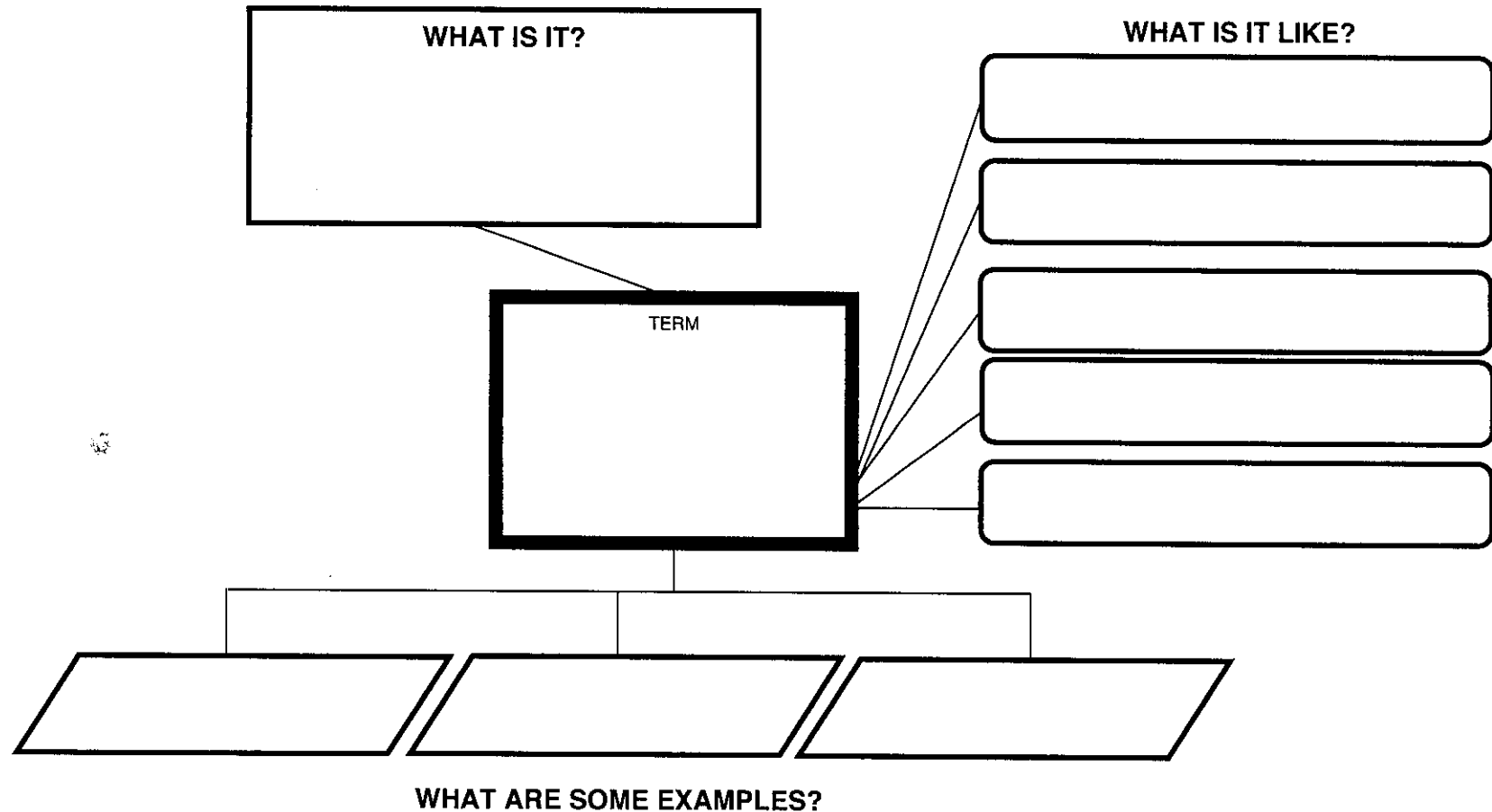
This page was last updated on Wednesday, 19-Jul-2006 18:56:10 EDT.

URL for this page: <http://www.readingquest.org/strat/cdmap.html>.

© 1998-2006 by Raymond C. Jones

CONCEPT of DEFINITION MAP

[Schwartz & Raphael, 1985]



Context – Content – Experience

Context:

Word: _____

Definition:

Possibilities:

From context:

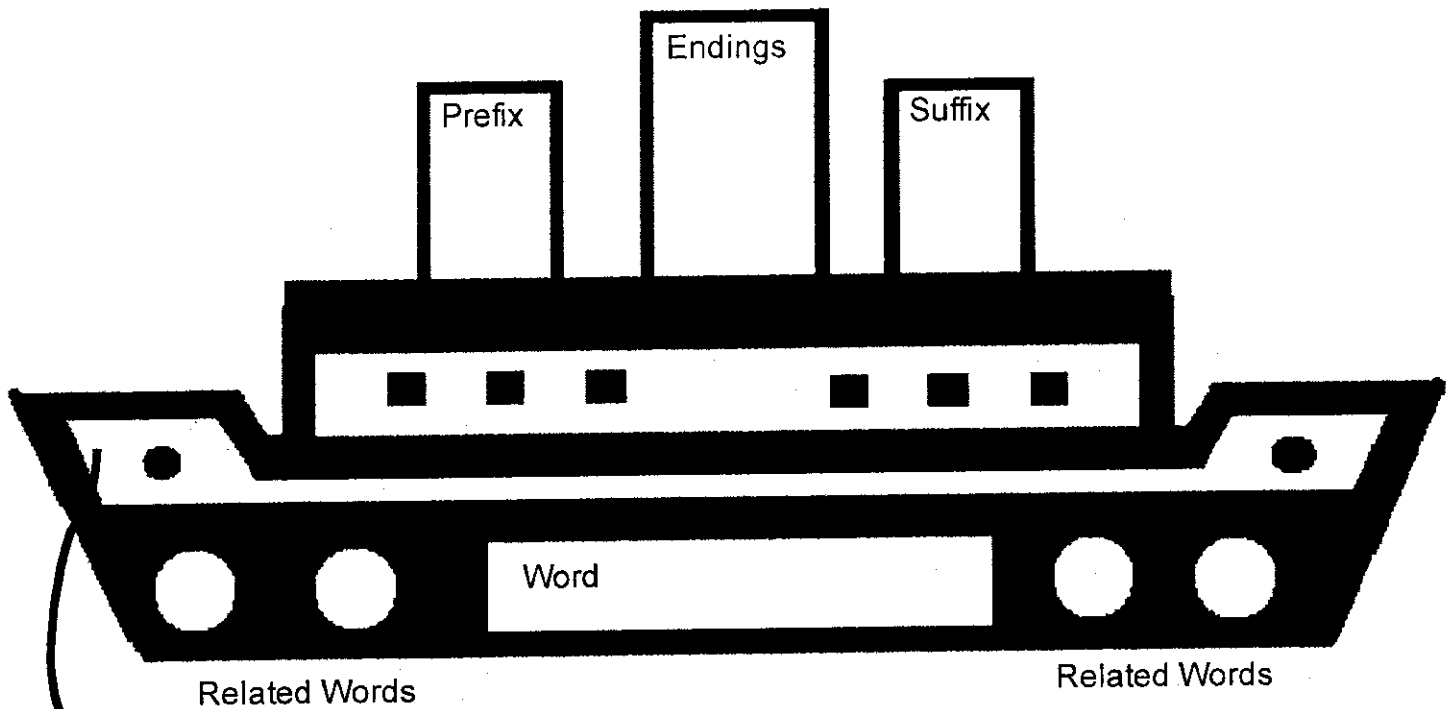
Common definition:

Specialized Example:

--	--	--

Personal Connections:

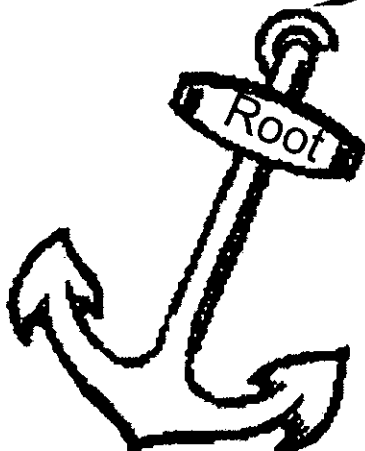
Cruising Through Vocabulary



Meaning:

Sentence: _____

Usage



Vocabulary Matching

Match the words in the left column with their synonyms in the right column.

Exit Cards

Use Exit Cards as a post-assessment.

List three words you learned.

List two words from the story you like to know more about.

Write one question you still have.

List three things you learned.

List two things from the story you like to know more about.

Write one question you still have about today's learning.

Frayer Diagram

The Frayer Diagram can be used for a pre or post assessment.

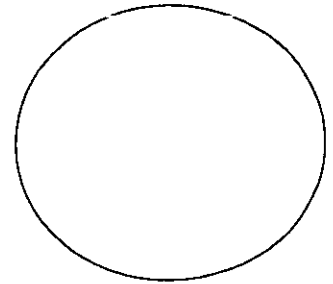
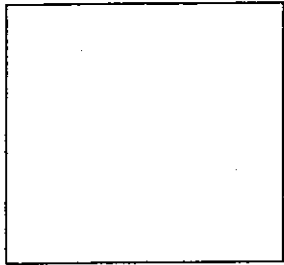
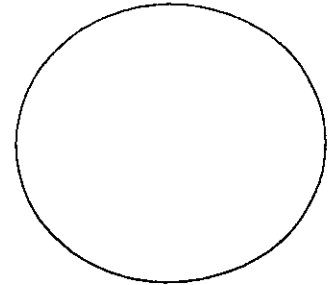
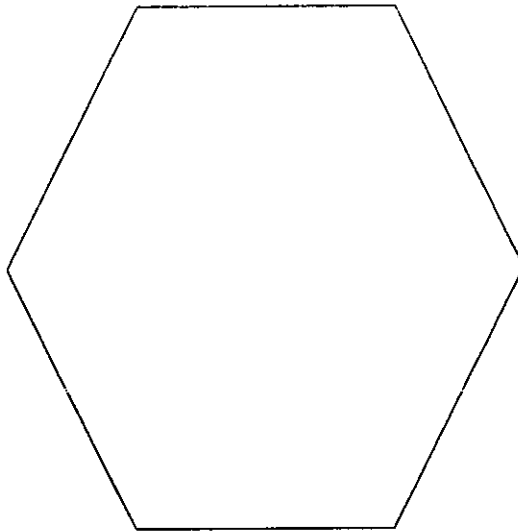
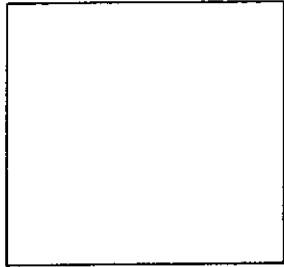
Draw Picture		Write Words You Know
Examples	<div>Word</div>	Non-Examples

Draw Picture		Write Words You Know
Examples	<div>Word</div>	Non-Examples

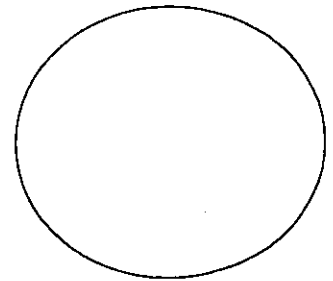
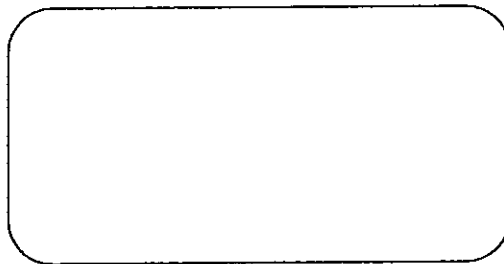
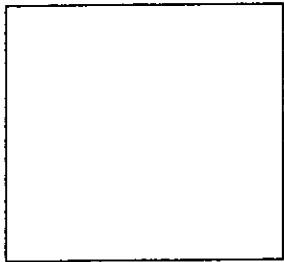
Non-Examples

Bigger Idea

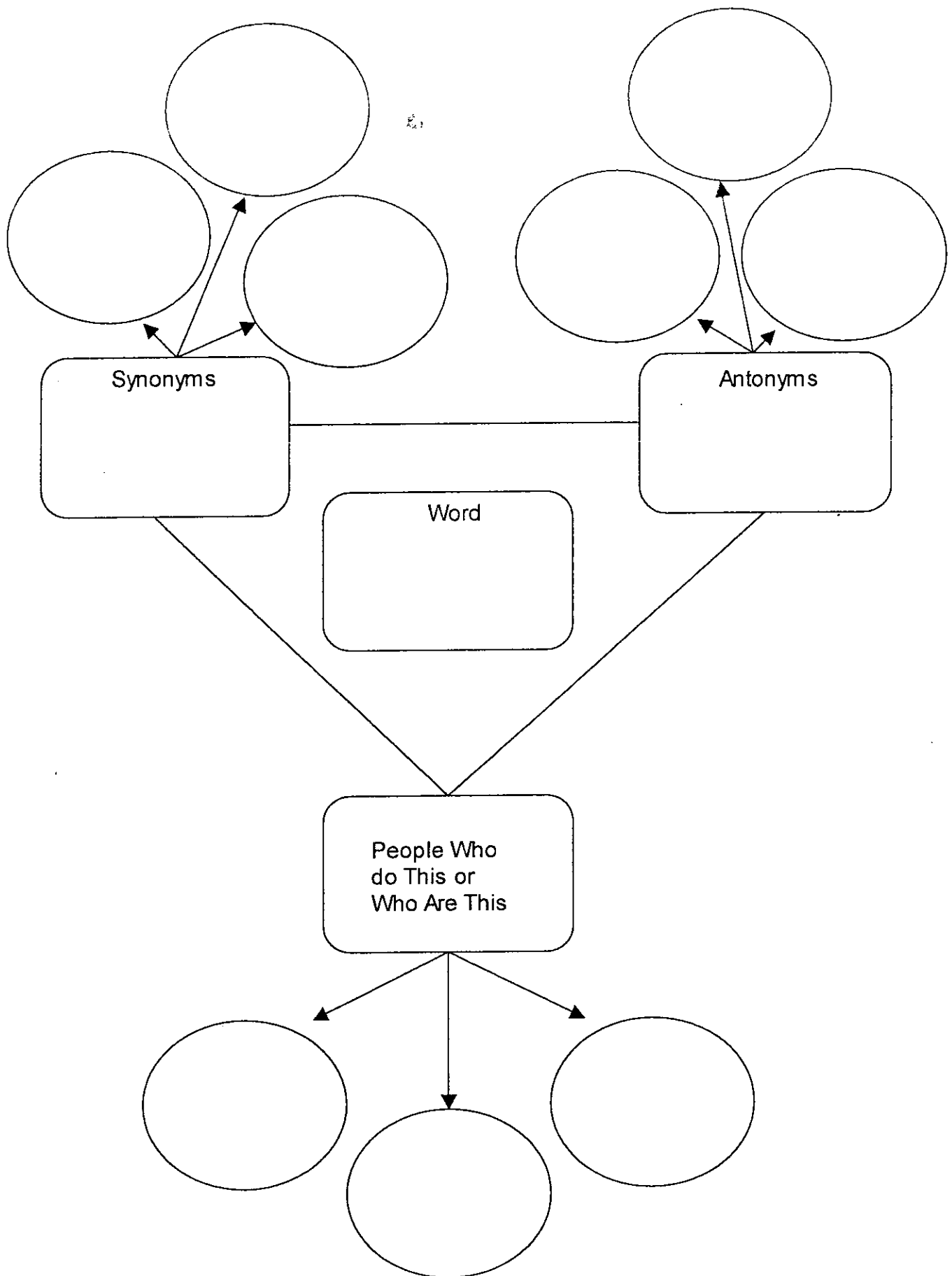
Examples



Key Word

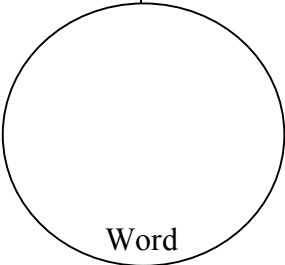


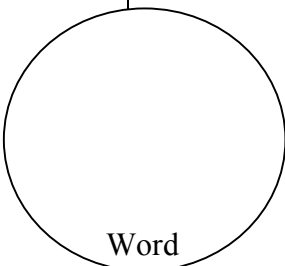
Essential Characteristics



Primary Frayer Diagram

The Frayer Diagram can be used for a pre or post assessment.

Draw Picture	Write Words You Know
	

Draw Picture	Write Words You Know
	

Science Vocabulary Worksheet

Word	Definition	Before Reading	After Reading	After Discussion	After Experiment or Observation

Key

- 1: understand and can explain
- 2: understand, but can't explain
- 3: fuzzy
- 4: don't know

Teaching Vocabulary, by Tompkins & Blanchfield, 2004

Vocabulary Enricher

Name _____

Name of Book _____ Pages _____

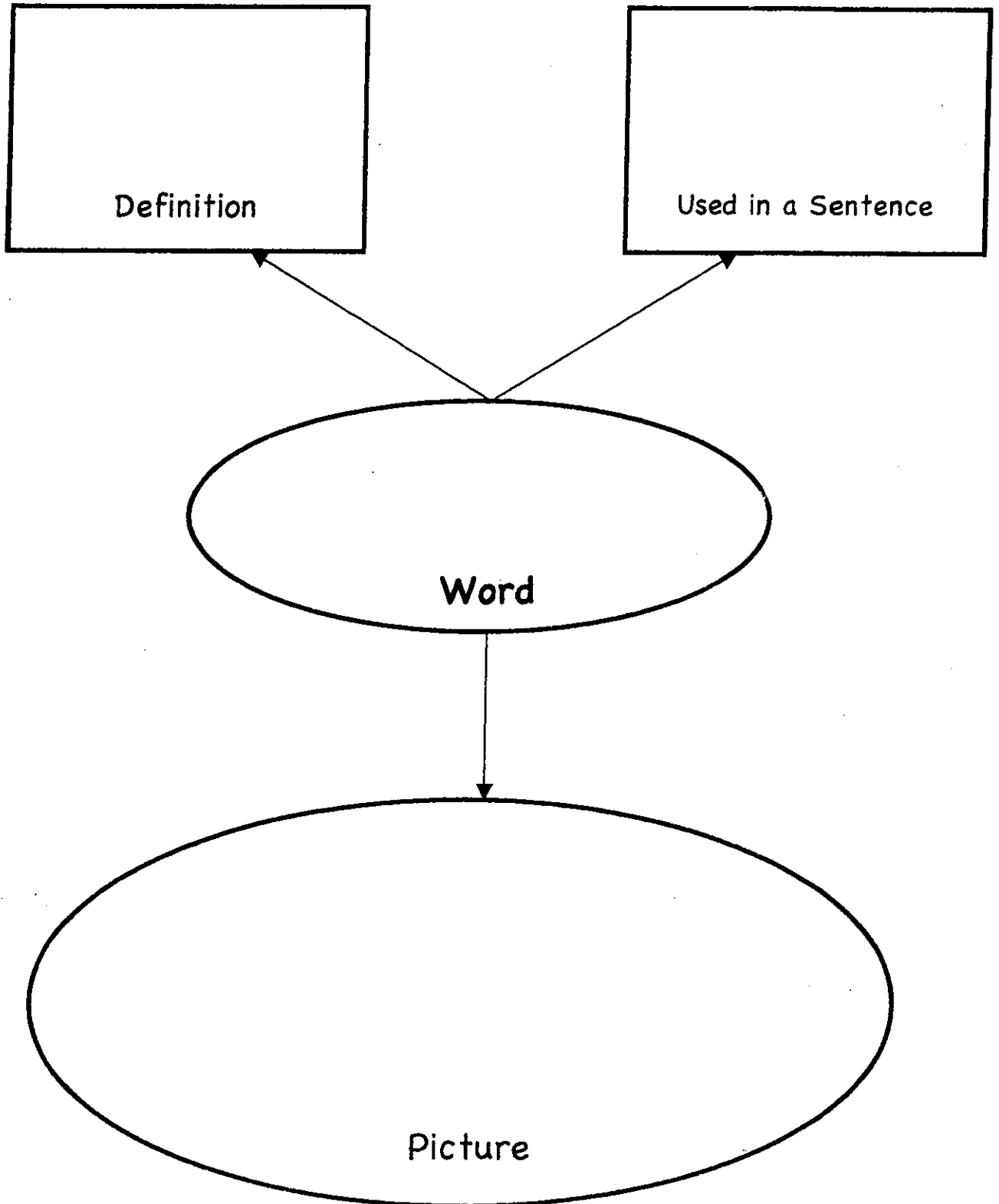
You may also run across familiar words that stand out somehow in the reading words that are repeated a lot, used in an unusual way, or are important to the meaning of the text. Mark these special words too, and be ready to point them out to the group. When your circle meets, help members find and discuss these words.

Page Number/ Paragraph	Word	Definition

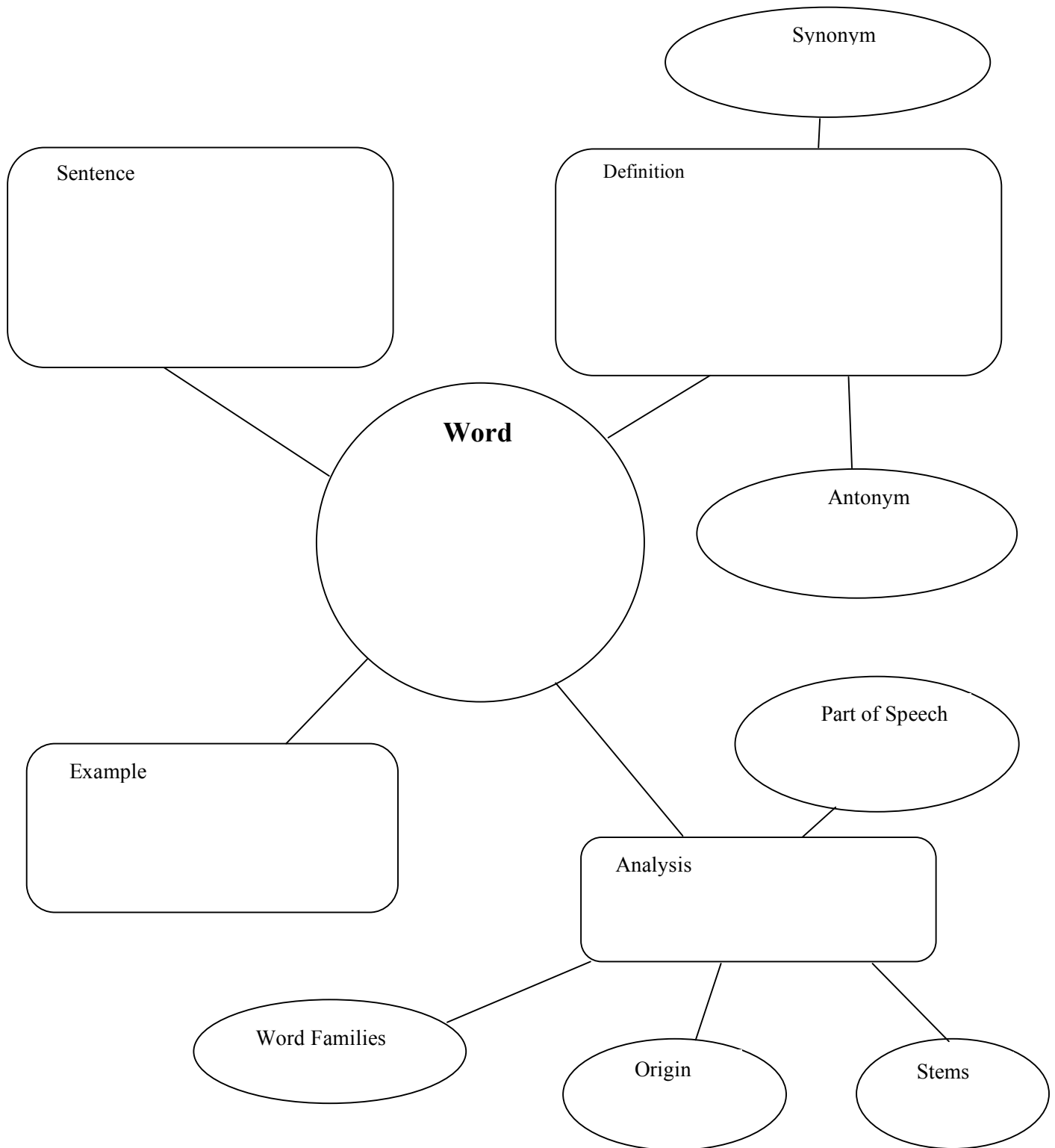
Write down any figurative language you found in the selection. Discuss the meaning of each.

Vocabulary Tic Tac Toe

Vocabulary Web



Vocabulary Web



- Home
- Overview
- Foundations
- Strategies
- Frameworks
- Resources



Strategies for Reading Comprehension

Vocabulary Word Maps



What Is It?

A vocabulary word map is a visual organizer that helps students engage with and think about new terms or concepts in several ways.

How Does It Work?

The new term goes in the middle of the map. Students fill in the rest of the map with a definition, synonyms, antonyms, and a picture to help illustrate the new concept.

Help Me Visualize A Vocabulary Word Map.

Got a good graphic for me?

(definition) _____ _____ _____	(synonym) _____
<div style="border: 2px solid black; padding: 5px; display: inline-block;"> VOCABULARY WORD </div>	
(antonym) _____	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> draw a picture OR use in a sentence </div>

Download and Print:

- [Vocabulary Word Map](#)
- [Vocabulary Word Map \(version 2\)](#)

VOCABULARY WORD MAP

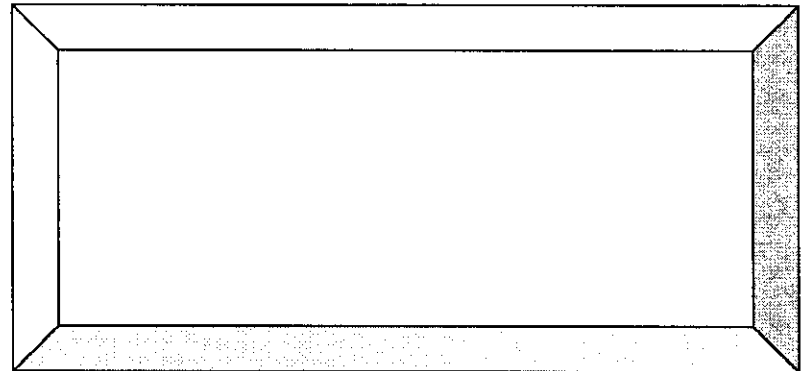
DEFINITION or SYNONYMS

ANTONYMS

VOCABULARY WORD

WRITE A SENTENCE USING IT MEANINGFULLY

DRAW a PICTURE of IT



V O C A B U L A R Y W O R D M A P

Definition in Your Own Words

Synonyms

VOCABULARY WORD

Use It Meaningfully in a Sentence

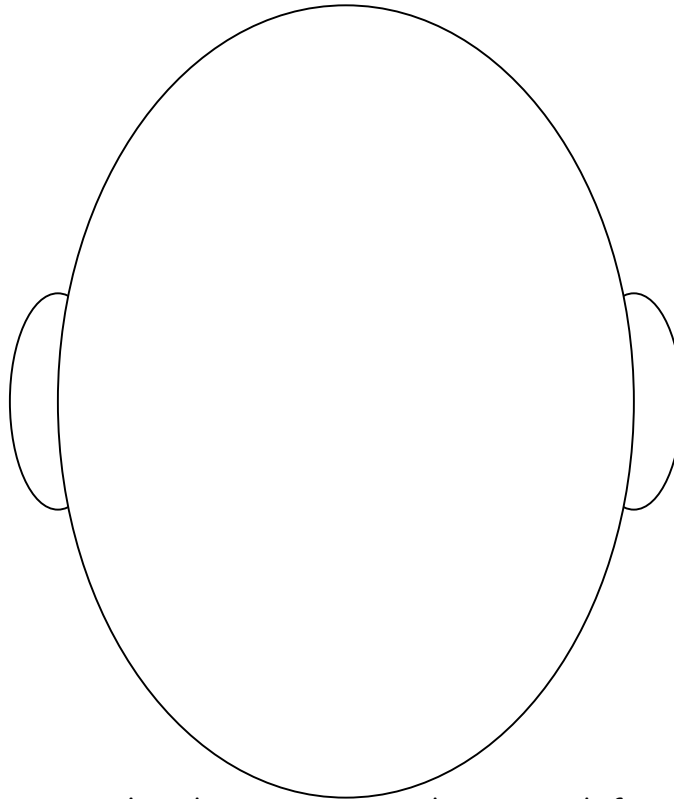
Draw a Picture of It

Thanks to Debbie Petzrick for design idea.

What's in Your Mind?

Draw pictures or write words to show what's in your mind about this word.

Word



Now using the ideas in your mind, write a definition
and a sentence for the vocabulary word.

Pre-assessment or post-assessment exercise

Word Chain – a pencil and paper word game

The idea is to create a word chain in which the last two letters of a word form the first two letters of the next.

Like this: metal>>almost>>stone>>nest>>stare>>reverse>>seat>>...and so on.

Word chains help students with their spelling because they encourage them to recognize possible letter combinations.

You score 2 points for each letter used

If you have to find a word from a dictionary
you only score 1 point for each letter.

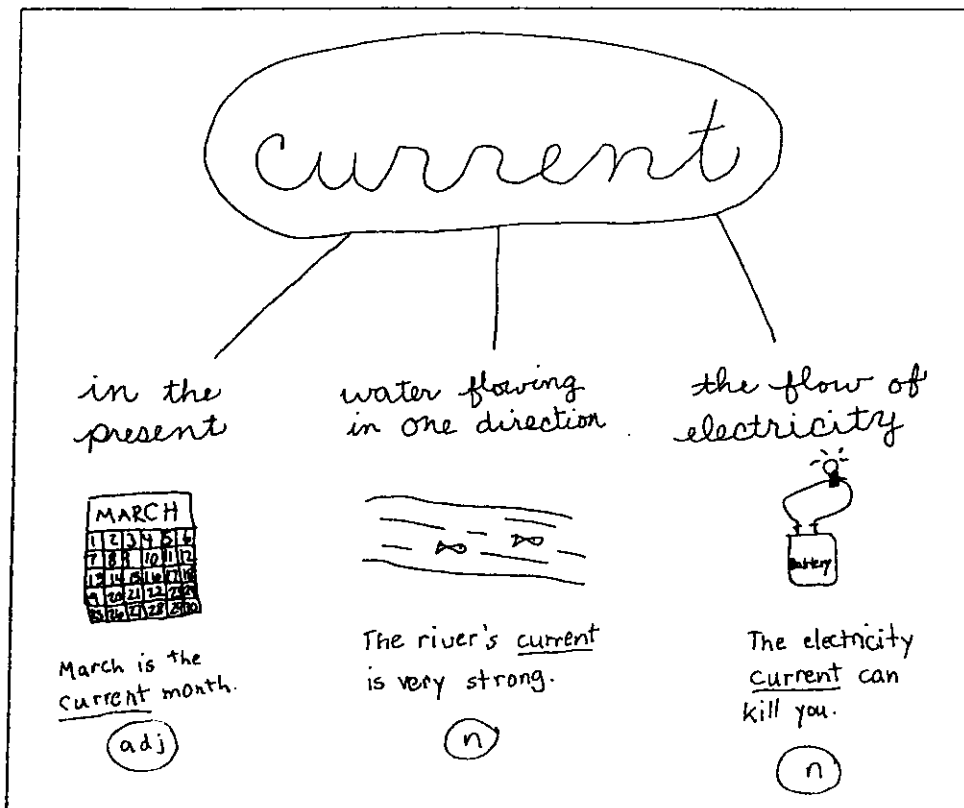
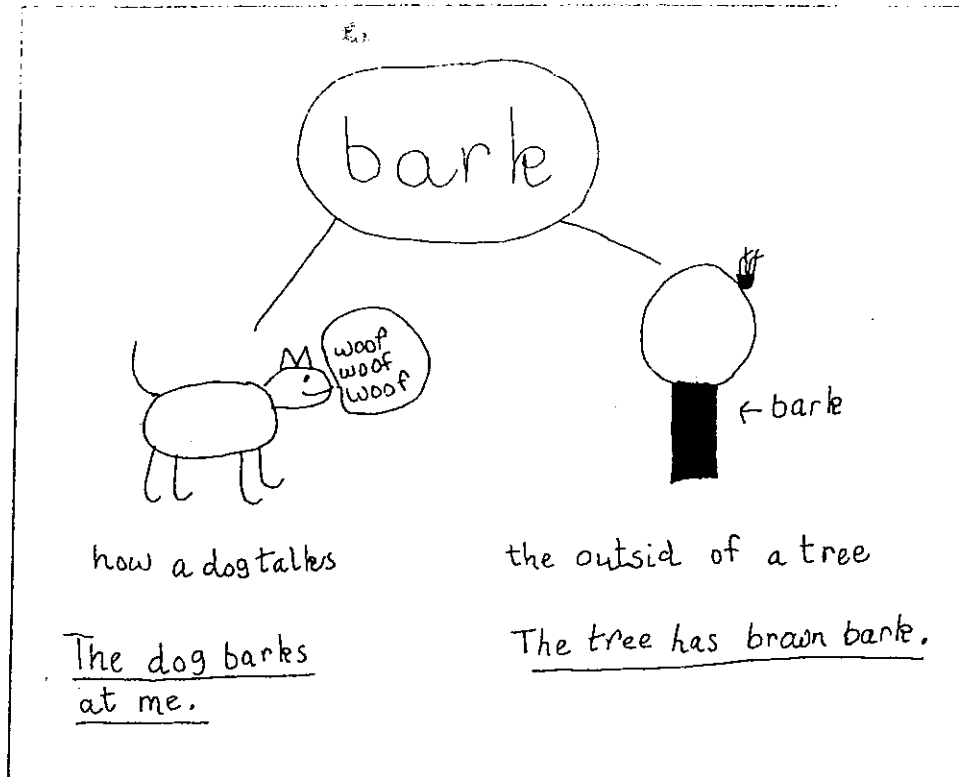
You can challenge the previous player if you think he can't follow his own word. If you make a successful challenge, your opponent loses the score for that word and loses his turn.

A typical chain will make the scoring clearer:

Word	Comments
Picture	nominated by Ann. (No score for the first word)
replace	Bill didn't use a dictionary so scores double: 14 points
celebration	Ann referred to the dictionary to find this word so only scores single points: 11
onion	Bill scores 10
once	Ann scores 8
cemetery	Bill scores 16. But Ann challenges the word "cemetery" – she believes he doesn't know a word starting ry-. She's right, so Bill loses his 16 points and his turn. She can replace cemetery with another ce- word.
certain	Ann scores 14...and so on.

<http://www.spelling.hemscott.net/puzzles12.html>

Word Clusters



Word Power

Nominate words for vocabulary. Choose words that would be good to know the rest of your life. Complete a nomination form for each word you wish to select.

Word Power

Word _____ Page _____

I nominate this word as a word good to know. It is important to use because

Nominated by _____ Date _____

Word Power

Word _____ Page _____

I nominate this word as a word good to know. It is important to use because

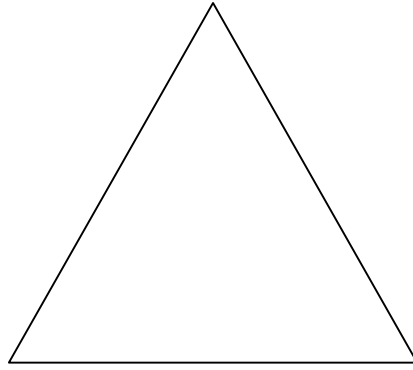
Nominated by _____ Date _____

Word Power

Word _____ Page _____

I nominate this word as a word good to know. It is important to use because

Nominated by _____ Date _____



Word Pyramid

Word

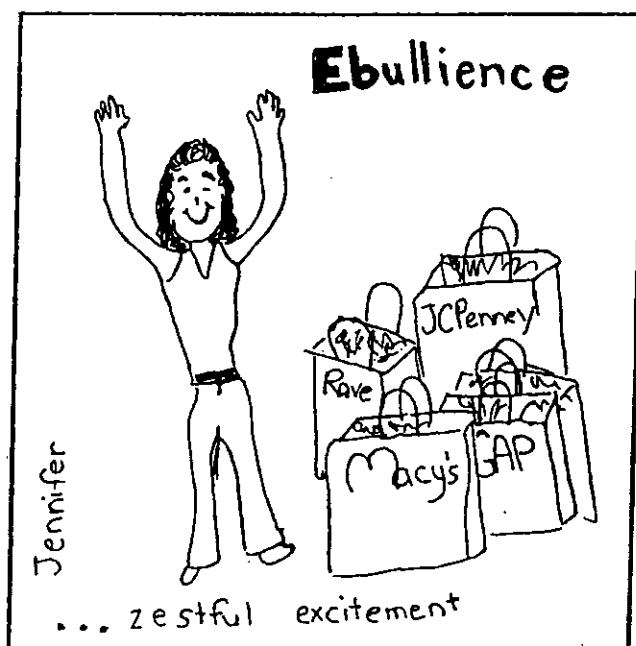
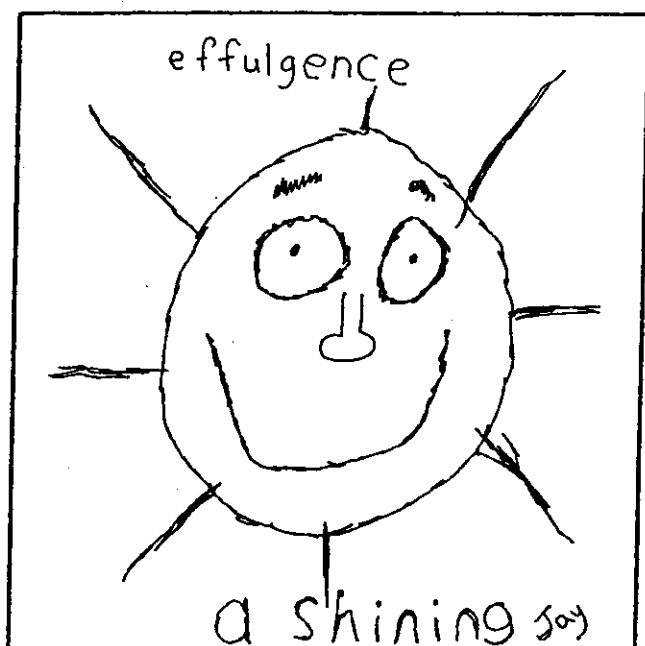
Synonyms

Antonyms

Adjectives describing the word.

Write a sentence using the word.

Vocabulary Squares



From Teaching Vocabulary, Tompkins & Blanchfield

Permission granted for use to Chatham County teachers by Dr. Sally Nicholson, 2007-2010.

Word Storm: Connecting vocabulary to the student's database

Ronald M. Klump

The Reading Teacher

Volume 48, Number 3, November 1994

Word Storm

Name: _____

To understand a word, it is sometimes better to know more than just the dictionary definition. A word map lets you write down different types of information to help you understand what a word means and the many ways in which the word can be used.

1. What is the word? _____

2. Write the sentence from the text in which the word is used:

3. What are some words that you think of when you hear this word:

4. What are some different forms of this word?

5. Name three people who would be most likely to use the word besides the teachers:

- _____
- _____
- _____

6. What are some other ways of saying the same thing?

7. Make up a sentence using this word. Let your sentence tell what the word means.

Word Study

Word

What is it?

What is it like?

Examples

Word

What is it?

What is it like?

Examples

Word

What is it?

What is it like?

Examples

Word

What is it?

What is it like?

Examples

Word Study

Concept

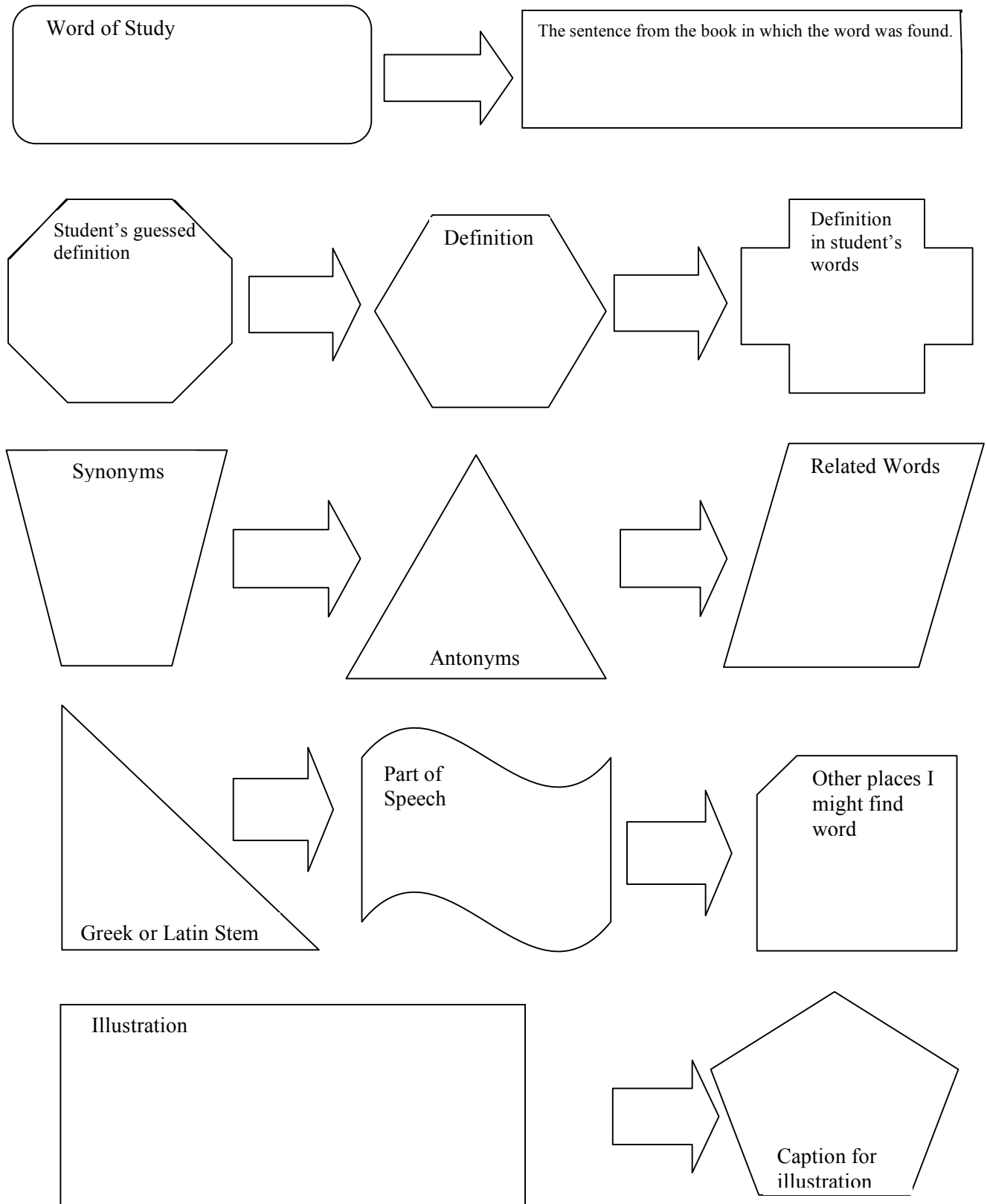
What it is

What it is Not

Illustration or Logo representing the concept

Caption for illustration _____

Word Study



Word Study Pre-Assessment

Write each word or phrase in the list below in the shape that best describes how well you know the word.

Word List

I have never heard of this word.

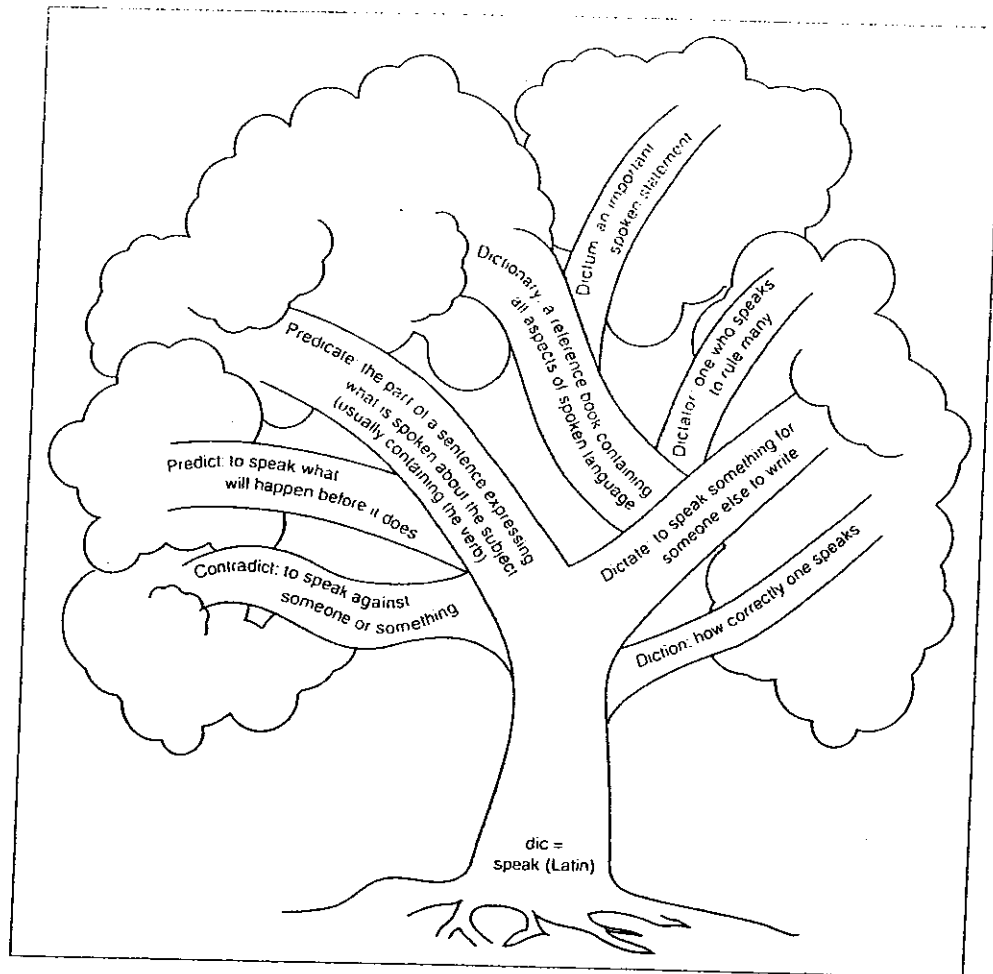
I have heard of this word but do not know what it means.

I think I know a meaning for this word.

I am sure I know what this word means.

Word Tree Posters

INVESTIGATING WORD ORIGINS

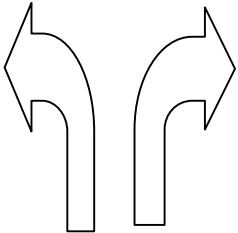
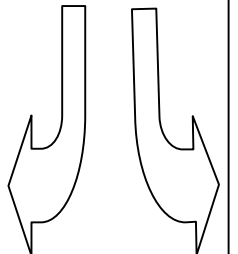


Teaching Vocabulary by Tompkins & Blanchfield, 2004

Permission granted for use to Chatham County teachers by Dr. Sally Nicholson, 2007-2010.

Writing Definitions

Directions: Select a word from a science or a social studies lesson. Write one characteristic in each box. Use the model sentence to write your definition.

		
<div style="border: 1px solid black; border-radius: 50%; width: 180px; height: 130px; margin: 0 auto; display: flex; flex-direction: column; align-items: center; justify-content: center;"><div style="border-top: 1px solid black; width: 100px; margin-bottom: 10px;"></div>Word<div style="border-top: 1px solid black; width: 100px; margin-bottom: 10px;"></div>Class</div>		
		
<div style="border: 1px solid black; padding: 10px; min-height: 150px;"><p>A _____ is a _____ that, _____,</p><p style="text-align: center;">(class) (characteristic)</p><p>_____, _____,</p><p style="text-align: center;">(characteristic) (characteristic)</p><p>_____.</p><p style="text-align: center;">(characteristic)</p></div>		

Common Science Root Words

Many science words contain root words that have their origin in Greek or Latin. Knowing the meaning of these root words can help students understand new terms. Here are some frequently used science root words with an example.

Root	Meaning	Example
aero-	air	aeronautics
alt-	high	altitude
aqua-	water	aquarium
archaeo-	primitive, ancient	archaeology
astr-	star	asteroid
atmo-	vapor	atmosphere
baro-	weight	barometer
bio-	life	biology
cal-	heat	calorie
cardi-	heart	cardiac
chrom-	color	chromatic
chron-	time	chronological
con-	together	concept
crani-	skull	cranial
cyt-	cell	cytoplasm
dent-	tooth	dental
fric-	rub	friction
gen-	birth	genetic
homo-	man, same	homicide
ject-	throw	eject
lab-	work	laboratory
lat-	side	latitude
luna-	moon	lunar
max-	greatest	maximum
mut-	change	mutation
neur-	nerve	neuron
paleo-	old	paleontology
ped-	foot	pedal
phys-	nature	physical
photo-	light	photography
sci-	know	science
som-	body	chromosome
son-	sound	sonar
stell-	star	constellation
sum-	highest	summit
terr-	earth	terrarium
ver-	truth	verify
void-	empty	devoid
vor-	eat	carnivore
zoo-	animal	zoology

Common Science Prefixes

A prefix is a group of letters added before a root word that changes the meaning of that word or expands its meaning. Knowing the meaning is helpful in learning and remembering science vocabulary words. The common science prefixes, meanings and examples are listed below.

Prefix	Meaning	Example
a-	not; without; lacking;	abiotic
ab-	away, from	abscess
agro-	soil, field	agriculture
anti	opposite, against	antibody
audi-	hear	audio
auto-	self	automobile
bene-	good, well	beneficial
bi-	two	bicycle
carcin-	cancer	carcinogen
centi-	hundredth	centimeter
centr-	center	centrifugal
contra-	against	contrary
de-	undo, away from	detach
deca-	ten	decameter
deci-	tenth	decimeter
di-	two	digest
dis-	separate	dissection
epi-	upon	epicenter
ex-	out of	exercise
extra-	beyond	extraterrestrial
geo-	earth, land	geologic
grav-	heavy	gravity
hecto-	hundred	hectometer
herb-	plant	herbicide
homo-	human, man	homogenized
hydr-	water	hydrogen
hypo-	under	hypodermic
in-	to, into, very	incomplete
infra-	below	infrastructure
kilo-	thousand	kilometer
kine-	move	kinetics
lip-	fat	lipid
macro-	large	macrobiotic
mal-	bad	malnutrition
micro-	small	micronutrients
milli-	thousandth	millipede
mono-	one	monocot
multi-	many	multiple
non-	not	nonconductor
nuc-	center	nucleus
omni-	all	omnivore
orb-	round, circle	orbit
pan-	all	pancreas
peri-	around	periscope
phon-	sound	phonograph
por-	opening	porous
pro-	first	protist
re-	again, back	regress
roto-	wheel	rotary
sol-	sun	solar
strat-	layer	stratosphere
sub-	under	submarine

super-	over	superior
syn-	together	synthesis
tele-	far off	telescope
therm-	heat	thermal
trans-	across	transport
uni-	one	universe
vig-	strong	vigorous

Common Science Suffixes

A suffix is a group of letters added to the end of a root word that changes that word or expands the meaning. Knowing the meaning is helpful in learning and remembering science vocabulary words. The common science suffixes, meanings and examples are listed below.

Suffix	Meaning	Example
-a	plural	data
-arium	place for	aquarium
-cide	killer of	herbicide
-cle	small	muscle
-en	made of	wooden
-gen	produces	nitrogen
-graph	write	telegraph
-ic	pertaining to	metallic
-ist	one who practices	scientist
-itis	infection	laryngitis
-ject	throw	eject
-let	small	platelet
-ment	action or process	experiment
-oid	part of	thyroid
-ology	study of	biology
-oma	tumor	carcinoma
-osis	process	osmosis
-ory	place for	laboratory
-phyll	plant	chlorophyll
-ry	profession	forestry
-scope	instrument	telescope
-ular	relating to	molecular
-ward	direction	westward
-y	quality of	sandy

Websites Helpful in Teaching Vocabulary

compiled by Dr. Sally Nicholson

<http://education.jlab.org/vocabhangman>

science vocabulary hangman

<http://school.discovery.com/studystarters>

archive of amazing science facts; new Study Starters featured weekly

<http://www.vocabulary.com>

classroom curriculum with self-paced, interactive activities

http://www.educationworld.com/a_lesson/lesson241.shtml

archive of fun activities

<http://www.wordcentral.com>

Merriam-Webster's Word Central offers kids a student dictionary, Daily Buzzword, and interactive word games

<http://www.teach-nology.com/worksheets/science/gen/>

FREE access to thousands of teacher resources, lesson plans, etc.

www.zdaily.com/vocabulary.htm

vocabulary test and free crossword puzzle daily

www.kn.pacbell.com/wired/fil/pages/listcomputernl.html

library of 2076 outstanding Internet sites categorized by subject, grade ...

www.globalclassroom.org/ecell100/javamath.html

interactive resources

www.funbrain.com

online educational games for kids of all ages, including math, grammar, science, spelling, and history

http://www.mathgoodies.com/lessons/vol6/intro_probability.html

features interactive math lessons, homework help, worksheets, puzzles, message boards, and newsletters

<http://www.eduplace.com>

K-8 elementary educational activities, games, themes, graphic organizers, etc.

www.playkidsgames.com

online kids games

www.graves.k12.ky.us/powerpoints/elementary
elementary PowerPoint presentations

<http://www.agameaday.com>
ENJOY a new word game, word search, brainteaser, trivia game, anagram,...

www.makefunoflearning.com
These books are a MUST for 1st - 8th grade language arts, self-contained and resource classrooms

www.vocabulary.co.il/
multiple vocabulary games

www.redshift.com/~bonajo/vocabbingo.htm
free vocabulary BINGO resource; print bingo cards from your own word list

<http://collier.mce.schoolinsites.com> (Vocabulary Parade)

<http://www.visualthesaurus.com> (Visual Thesaurus-can try it without charge)

<http://puzzlemaker.com/> (Discovery School's Puzzlemaker)

<http://teacher.scholastic.com/products/classmags/elementary.htm> (Scholastic classroom magazines online)

<http://www.cse.buffalo.edu/~rapaport/CVA/Web-Print-Word-Sources.htm> (Sources of Words and Fun-With-Words in Print and On-Line)

Introduction

As part of the science essential vocabulary study, all 4-5 teachers are receiving a copy of *Miss Alaineus, A Vocabulary Disaster* as a read aloud tool for introducing vocabulary-building lessons. To assist with enriching students' vocabulary through the use of this book, a variety of activities have been assembled so that all students can experience vocabulary growth. A sampling of strategies is provided as a springboard for vocabulary study.

Teachers should take several days to read this book aloud to students. During these sessions, teachers stress interesting words and ask students to act as word detectives listening for new and interesting words that can be added to a word list. Once students are familiar with the text, vocabulary activities should begin. The included activities can be used in a flexible manner.

Research

Research shows that a good vocabulary is crucial to comprehension and academic achievement in both first and second language users (NICHD 2000, Parel 2004). Vocabulary knowledge is among the best predictors of reading achievement (Daneman, 1991). Further, researchers have stated that vocabulary deficiencies are a primary cause of academic failure in grades three through twelve (Baumann & Kameenui, 1991; Tanovich, 1986; Becker, 1977). Direct and explicit instruction of a set number of vocabulary words will improve academic success in all content areas. Stahl and Fairbanks (1986) profess that learning can be increased by as much as 10% to 30% by teaching students 350 words each year. In research done by Beck, Perfetti, & McKeown (1982), students who were given direct vocabulary instruction were better able to grasp the meaning of untaught words. Although no one particular method has been determined to be most effective, instructional strategies such as identifying synonyms and antonyms, providing examples and nonexamples, and making connections to learners' lives has shown positive growth in students' vocabulary development (Beck & McKeown, 1991).

Summary of Miss Alaineus, A Vocabulary Disaster

Miss Alaineus, A Vocabulary Disaster is a hilarious romp through the usually not-so-funny world of vocabulary. Sage misses school due to a cold and from there the misunderstanding begins. But "miscellaneous" is finally revealed for the word it truly is, and Sage manages to redeem herself in a marvelous and inspiring creative leap.

"Once a reader has had his interest piqued by the realization that behind one English word lies a myth of the ancient Greeks, while another word can be traced to a twentieth-century American comic strip, it is perfectly easy to become addicted..."(Mish 1976)

Five-Day Miss Alaineus: Vocabulary Teaching Plan

Day One: Introduce Long-Term Projects: Word Detectives and ABC Book

Discuss how to be a word detective, locating and writing interesting words in the text during read-aloud sessions. After reading, have students work in small groups to discuss their words and then collectively suggest a few favorites to add to the word wall.

Introduce the "Long Term Project" which somewhat mirrors that of the assignment Miss Alaineus gave her class. This project will be due at the end of the unit. Student are asked to open the dictionary to the section A and choose any three words to include in one sentence. They will continue through the entire alphabet in the same manner. Individual teachers determine when this assignment will be completed (at home or as part of in class assignment). The assignment can also be explained by reading directly from the text on page one.

At the end of the unit a suggestion that integrates technology involves having students combine their sentences into a booklet. Assign one letter of the alphabet to each computer so that all students can type their sentence on the appropriate computer (all A sentences on the A computer, all B sentences on the B computer and so on). This project will take several sessions to complete, but once all sentences have been compiled you may print the pages, and compile them into an ABC vocabulary book to add to the classroom library.

(over)

Day Two: Before and After Definitions

Continue the long-term projects. Introduce “Before and After Definitions”. In this activity students will create their own definitions for four selected words and then look up the words and also write the dictionary definitions of the same words. The two definitions can be compared to determine if the “before” definition was accurate. The optional Draw a Word graphic organizer can be used to draw a picture for each word. A student friendly definition could be written below the picture. At this time a student friendly definition for the week’s words should be displayed for students to refer to as needed.

Day Three: Definition, Sentence, Synonyms and Antonyms

Continue long-term projects. Introduce the new activity. Use the provided graphic organizer to have students write the five selected words, a definition of each, a sentence with the word and a synonym and antonym for each word. Students will put each word on a separate page so that each student uses a total of five pages.

Day Four: Word Pyramids

Continue long-term projects. Introduce “Word Pyramid”. Student will use the provided page to create a word pyramid with a self-selected vocabulary word. The word should be approved by the teacher and selected from displayed words. The word pyramid includes antonyms, synonyms, and adjectives to describe the word.

Day Five: Assessment Using Word-O and/or Oral Group Activity

Materials: Word-O blank sheets, displayed words, two copies of each word with definitions and sentences created as Word-O game cards, self-assessment rubric, word cards (5 sets – one for each group) with one copy of each word in a set.

- Word-O: Students fill all boxes with selected words on their individual Word-O card (words may be used twice each). Teacher reads the definition of a word and/or a sentence with the word missing. Using a crayon or marker, students mark only one appropriate word with an X. The words will be repeated at some point during the game. The first student to get three in a row wins the game.
- Oral Group Activity (Self Assessment): Distribute Self Assessment Checklist to each student. Form small heterogeneous groups (4 or 5). Place a set of word cards face down in the center of each group. In turn students take a card and all group members draw a picture to represent the word. Then the player having a turn must give a definition and sentence for the selected word followed by other group members supplying their definitions and sentences. Group members decide if definitions and sentences supplied by others are correct and ask for teacher’s help as needed before placing tally marks on the assessment pages to indicate skill levels. Repeat the above procedure until all word cards are used.

Other Activities

Brainstorm-Group-Express

Students brainstorm as many words as they can to go with one vocabulary word. Next they group them into categories with similarities and finally they write sentences with the words they have collected.

Concentration

Use preselected words to prepare sets of cards with a word on one card and the definition for the word on the other. Prepare sets for at least five words. Play concentration matching the word to its definition.

Using the Graphic Organizers

Use “Thinking Maps” or other graphic organizers to teach the words. Discuss and review each word using student friendly definitions as well as any pictures you can provide. If none are readily available, try using the clip art function on “Word” or by searching on-line. Engage students in a discussion to elicit prior knowledge. After discussion, add the new words to the graphic organizer and word wall.

Before and After Definitions

Name _____

Write your own definition for each word without using a dictionary. Next look up each word and write the dictionary definition. Compare your definition with the dictionary definition.

1. _____

Word

Student's Definition _____

Dictionary Definition _____

2. _____

Word

Student's Definition _____

Dictionary Definition _____

3. _____

Word

Student's Definition _____

Dictionary Definition _____

4. _____

Word

Student's Definition _____

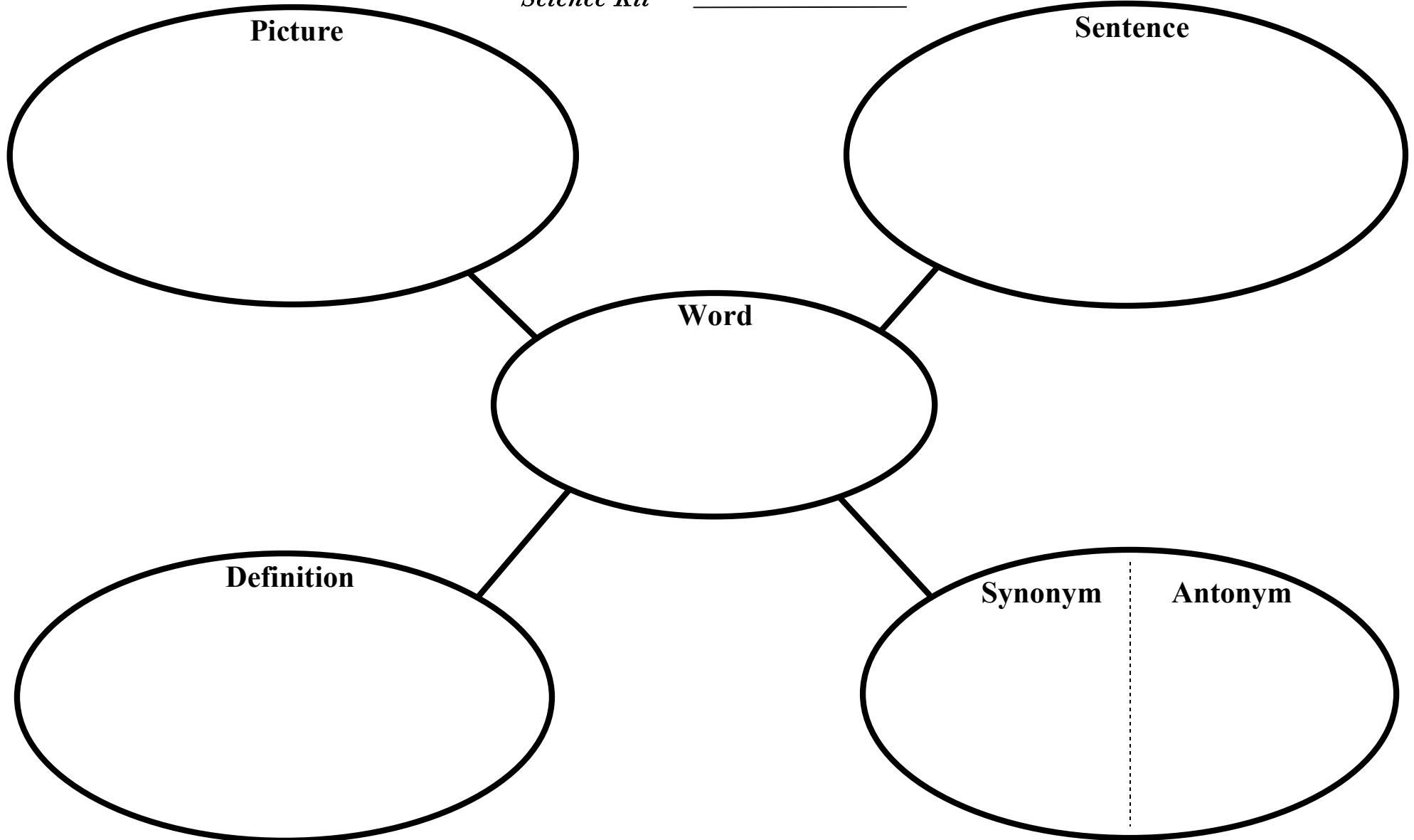
Dictionary Definition _____

Essential Science Vocabulary

Grade _____

SCoS Goal _____

Science Kit _____



Word Pyramid

Word

Antonyms

Synonyms

Adjectives

Source: Stacey Boldgett, Internet website Learning Unit, hyperlink mail to: blodgett@dreamscape.com

Word-O

Vocabulary Assessment
Checklist for Peer-Assessment

Student _____ Date _____

Vocabulary Words _____

Place a tally mark to show your skill level.

STRATEGY	Yes	No
1. Can read the word		
2. Can make a sentence with the word		
3. Can give a definition for the word		
4. Can draw a picture or symbol to represent the word		

Pictures for vocabulary words (Draw more on the back of this page)

--	--